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Maintenance Resource Prediction Model (MRPM) User's Manual

by
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The Maintenance Resource Prediction Model (MRPM) is a computer system designed to assist in planning and programming maintenance resources, based on the anticipated resource requirements of actual installation facilities, for prediction periods of 1 to 10 years.

This User's Manual provides improved maintenance resource data for use in facility planning, design, and maintenance activities. This manual explains the application of the MRPM computer system to installation facility data base information, to help Army planners in preparing DD Form 1391 documentation, designers in life-cycle cost component selection, and maintainers in resource planning.

This data base and computer system is presently used by U.S. Army Corps of Engineers (USACE) designers at district and installation levels, and by resource programmers at the USACE Headquarters, Army Major Command, and installation levels. These products may also prove useful to other Government agencies and to the private sector.

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FOREWORD

This research was conducted for Headquarters, U.S. Army Corps of Engineers (HQUSACE) and the Office of the Assistant Chief of Engineers (OACE) under various Research, Development, Testing, and Evaluation (RDTE) and reimbursable funding documents. Work began under RDTE in 1980 and continued in reimbursable projects from 1984 to 1989. The technical monitor for the RDTE part was initially Dr. Larry Schindler, CEMP-ECE, and at the termination of the project, Mr. Edward Davis, CEHSC-FM-R. The technical monitor for the reimbursable part was Ms. Val Corbridge, DAEN-ZCP-B.

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CONTENTS

	Page
FOREWORD	i
LIST OF FIGURES AND TABLES	ix
LIST OF PROCEDURES	xiii
 1. INTRODUCTION	 1-1
1.1 Basic Operation Description	1-1
1.2 System Organization	1-3
1.2.1 Facility Summary (PC) System	1-3
1.2.2 Individual Facility Component System	1-4
1.3 User Manual Organization	1-4
1.4 An Overview of the Total Process	1-4
1.4.1 Introduction	1-4
1.4.2 Initial Setup	1-4
1.4.3 Annual Work	1-4
1.4.4 Army-Wide Resource Files	1-5
1.4.5 Installation Resource Files	1-7
1.4.6 Facility Description Files	1-7
1.5 Facility Modeling Options	1-7
1.5.1 Single Use Facilities	1-7
1.5.2 Multiple Use Facilities	1-7
1.6 How To Learn the System	1-8
1.7 Standard Screen Display and Keys	1-8
1.7.1 Standard Screen Display	1-8
1.7.2 Standard Keys	1-10
1.8 Initial Setup for a Reporting Organization	1-11
 2. INSTALLATION FUNCTIONS	 2-1
2.1 Maintenance Prediction Model Main Menu	2-1
2.2 Basic Information Selection Menu	2-2
2.2.1 General Information	2-3
2.2.1.1 Organization Chart	2-4
2.2.1.2 RMF Factors	2-7
2.2.1.3 F4C Conversion Codes	2-8
2.2.1.4 Report Periods	2-8
2.2.1.5 Unit Cost Factors	2-23

CONTENTS (Cont'd)

	Page
2.2.1.6 Directory Location	2-24
2.2.2 Prediction Models	2-24
2.2.2.1 Prediction Model Definitions	2-25
2.2.2.2 F4C Prediction Model Definitions	2-25
2.2.2.3 Component Prediction Model Definitions	2-26
2.2.3 Facility Resource Data	2-27
2.2.3.1 F4C Resource Description Table	2-27
2.2.3.2 Component Tree Table	2-29
2.2.3.3 Basic Task Table	2-29
2.2.3.3.1 Units of Measure	2-30
2.2.3.3.2 Trade and Costs Data	2-30
2.2.3.3.3 Task Classification	2-31
2.2.3.3.4 Special-Purpose Equipment and Costs	2-32
2.2.3.3.5 Work Performance Methods	2-32
2.2.3.4 Total/Partial Summary Tasks	2-36
2.2.3.5 F4C Description Editor	2-37
2.2.3.6 Facility Consistency Check	2-37
2.2.4 Reference Data for Individual Facilities	2-38
2.2.4.1 Subinstallation and Area Identification	2-38
2.2.4.2 Travel Zones	2-39
2.2.4.3 Special Condition Multipliers	2-40
2.2.4.4 Financial Management	2-45
2.2.4.4.1 Appropriations Code Table	2-45
2.2.4.4.2 AMS Functional Group Codes	2-46
2.2.4.4.3 F4C to AMS Conversion Table	2-46
2.2.4.4.4 Standard Report Table	2-47
2.2.4.5 Facility Funding Profile	2-47
 2.3 Facility Information	 2-48
2.3.1 Facility Information Selection Menu	2-48
2.3.2 Resource Calculation Menu	2-49
2.3.3 Display Resources	2-56
2.3.3.1 Display Facility Resources	2-57
2.3.3.2 Display Financial Data	2-59
2.3.3.3 Display Facility Totals	2-60
2.3.3.4 Display Trad Data	2-61
2.3.4 Component and Task Quantity Takeoff and Dates	2-61
2.3.5 General Information	2-63
2.3.6 Reports	2-66
2.3.6.1 F4C Organizational Summary Report	2-67
2.3.6.2 Task Cost Report	2-69
2.3.6.3 Facility Component Quantities and Dates	2-70
2.3.6.4 Ordered Task Report	2-70
2.3.6.5 Funding Report	2-77
2.3.6.6 Resource Summary	2-83
2.3.6.7 Copy Financial Report Files	2-85

CONTENTS (Cont'd)

	Page
2.3.6.8 Facility Totals Report.	2-86
2.3.6.9 Combine Funding Reports	2-88
2.3.6.10 Trade Index Report	2-89
2.3.7 Query: Questions and Answers	2-89
2.3.8 Model Facility	2-91
2.3.8.1 Model Facility From IFS Database	2-91
2.3.8.1.1 Summary Data	2-91
2.3.8.1.2 Individual Facility Data	2-92
2.3.8.1.3 Data Entry	2-93
2.3.8.2 Model Facility From an Input File	2-94
2.3.8.3 Model Facility At Terminal	2-95
2.3.9 Copy a Facility Record	2-96
2.3.10 Global Change to Components	2-97
2.3.11 Facility Group to Dwelling Unit Conversion	2-97
2.3.12 Delete Resource Files	2-98
2.3.13 Move Facilities to New Directory	2-98
2.3.14 Delete Resource Total File	2-99
 2.4 Review and Approval	 2-100
2.4.1 Obtaining Financial Report Files from Subordinate Organizations and Facility Directories	2-100
2.4.2 Generate Resource Summary	2-100
2.4.3 Display Resource Summary	2-102
2.4.4 Report for Total and Components	2-104
2.4.5 Ordered Component and Task Report	2-105
2.4.6 Copy Financial Reports	2-107
2.4.7 Transmit Resource Files to Higher Organization	2-108
 2.5 Research	 2-108
 3. MAJOR COMMAND (MACOM) FUNCTIONS	 3-1
3.1 Introduction	3-1
3.2 General Resource Summary	3-1
3.3 Display Resource Summary	3-1
3.4 Report for Total and Components	3-1
3.5 Ordered Component and Task Report	3-1
3.6 Transmit Resource Summary	3-1
 4. ARMY COMMAND (HQDA) FUNCTIONS	 4-1

CONTENTS (Cont'd)

	Page
4.1 Introduction	4-1
4.2 Generate Resource Summary	4-1
4.3 Display Resource Summary	4-1
4.4 Report for Total Components	4-1
4.5 Ordered Component and Task Report	4-1
5. PROCEDURES	5-1
5.1 Hardware and Software Requirements	5-1
5.2 Loading the MRPM System Into Your PC	5-1
5.3 Entering the MRPM System	5-3
5.4 Loading Installation Data Tables	5-3
5.4.1 Basic Information	5-3
5.4.1.1 General Information	5-3
5.4.1.2 Facility Resource Data	5-4
5.4.1.3 Individual Facility Reference Data	5-4
5.4.2 Facility Information	5-5
5.4.2.1 General Information	5-5
5.4.2.2 Facility Component Quantities and Dates	5-5
5.4.2.3 Initial Setup for a Reporting Organization	5-6
5.4.2.4 Facility Calculation Strategy	5-6
5.5 Entering Updated Installation Information	5-7
5.6 Modifying Existing Basic Task Information	5-7
5.7 Adding New Tasks to an Existing Component	5-7
5.8 Adding New Components and Tasks	5-7
5.9 Adding a New Facility	5-7
5.10 Performing Resource Prediction Calculation	5-7
5.11 Display Resource Predictions	5-7
5.12 Obtaining Appropriation Resource Summary Information	5-7
5.13 Sending Summary Information to the MACOM	5-8

CONTENTS (Cont'd)

	Page
5.14 Saving Files	5-8
5.14.1 On Diskettes	5-8
5.14.2 On Tape Cartridge	5-8
5.15 Restoring Information	5-8
5.15.1 From Diskettes	5-8
5.15.2 From Tape Cartridge	5-9
5.16 Leaving the MRPM System	5-9
5.17 Modeling a Facility for the MRPM System	5-9
5.18 Procedure To Split a Facility Group Into Individual Facilities, Dwelling Type, and Dwelling Unit	5-10
5.18.1 Facility Group to Individual Facility	5-10
5.18.2 Individual Facility to Dwelling Type	5-10
5.18.3 Dwelling Type to Individual Dwelling Unit	5-11
5.19 Procedure To Create a New Directory for Facility Storage	5-11
5.20 Download Data From IFS	5-12
6. LEARNING THE MRPM SYSTEM	6-1
6.1 Introduction	6-1
6.2 Facility Information	6-4
6.2.1 Facility Information Selection Menu	6-4
6.2.2 General Information	6-4
6.2.3 Model a Facility	6-6
6.2.4 Resource Calculation	6-9
6.2.5 Display Resources	6-12
6.2.6 Component Quantity and Dates	6-14
6.2.7 Reports	6-17
6.2.7.1 Organizational Summary Reports	6-17
6.2.7.2 Task Cost Report	6-18
6.2.7.3 Facility Component, Quantity, and Dates Report	6-19
6.2.7.4 Ordered Yearly Task Report	6-19
6.2.7.5 Funding Report	6-20
6.2.7.6 Resource Summary Report	6-27
6.2.7.7 Total Facility Resource Report	6-28
6.2.7.8 Combine Funding Report	6-31
6.2.7.9 Trade Index Repor	6-31
6.2.8 Copy a Facility	6-32
6.2.9 Facility Group to Dwelling Type or Unit	6-32
6.2.10 Global Change to Components	6-33

CONTENTS (Cont'd)

	Page
6.2.11 Query	6-33
6.3 Basic Information Selection Menu	6-34
6.3.1 General Information	6-34
6.3.1.1 Organizational Chart	6-34
6.3.1.2 RMF Factors	6-34
6.3.1.3 F4C Conversion Codes	6-35
6.3.1.4 Report Periods	6-35
6.3.1.5 Unit Cost Factors	6-36
6.3.1.6 Directory Location	6-36
6.3.2 Prediction Models	6-36
6.3.2.1 Prediction Model Definition	6-36
6.3.2.2 F4C Prediction Models	6-36
6.3.2.3 Component Prediction Models	6-37
6.3.3 Facility Resource Description Data	6-37
6.3.3.1 Component Tree Table	6-37
6.3.3.2 Basic Task Table	6-38
6.3.3.2.1 Units of Measure	6-39
6.3.3.2.2 Trade and Costs	6-39
6.3.3.2.3 Task Classification	6-40
6.3.3.2.4 Equipment and Costs	6-40
6.3.3.2.5 Work Performance Methods	6-40
6.3.3.3 Total/Partial Summary Tasks	6-42
6.3.3.4 F4C Resource Description Table	6-43
6.3.4 Reference Data for Individual Facilities	6-43
6.3.4.1 Subinstallation and Area Identification	6-43
6.3.4.2 Travel Zones	6-43
6.3.4.3 Special Condition Multipliers	6-44
6.3.4.4 Financial Management (Appropriations)	6-44
6.3.4.4.1 Appropriation Code Table	6-44
6.3.4.4.2 AMS Functional Group Codes	6-45
6.3.4.4.3 F4C to AMS Conversion Table	6-45
6.3.4.4.4 Standard Report Table	6-45
6.3.4.5 Facility Funding Profile	6-45
6.4 Review and Approval	6-45
6.4.1 Reporting Installation	6-46
6.4.1.1 Generate Resource Summary	6-46
6.4.1.2 Display or Graph Existing Report File	6-46
6.4.1.3 Report for Total Components	6-47
6.4.1.4 Ordered Component and Task Report	6-47
6.4.1.5 Transmit Resource Files to MACOM	6-47
6.5 Saving Directories on Tape	6-48
6.5.1 Saving - C:\MAYNARD	6-48
6.5.2 Saving - D:\BTRIEVE	6-48

CONTENTS (Cont'd)

	Page
6.5.3 Saving - E:\DATA\Y1	6-45
6.6 Restoring Directories From Tape	6-50
6.6.1 Restoring - C:\MAYNARD	6-50
6.6.2 Restoring - D:\BTRIEVE	6-51
6.6.3 Restoring - E:\DATA\Y1	6-52
Appendix A: System Chart	A-1
Appendix B: MRPM System Operations	B-1
Appendix C: Report Formats	C-1
Appendix D: Army-Wide Component/Task Listing	D-1
Appendix E: Forms for Facility Modeling	E-1
LIST OF ABBREVIATIONS AND TERMS	AT-1
DISTRIBUTION	

FIGURES

	Page
1-1 MRPM Overview	1-6
1-2 Standard Menu Screen Display	1-8
1-3 Standard Screen Display	1-9
1-4 Standard MRPM Army Organizational Chart by Organization Codes	1-11
1-5 Installation Selection Menu	1-12
1-6 Installation Setup	1-13
2-1 Maintenance Prediction Model Menu	2-1
2-2 Basic Information Selection Menu	2-2
2-3 General Information Selection Menu	2-3
2-4 Organizational Chart	2-4
2-5 RMF (OCE) Factor File	2-7
2-6 F4C to AMS Conversion Table	2-8
2-7 Report Periods	2-9
2-8 Unit Cost Factors	2-23
2-9 Directory Location	2-24
2-10 Prediction Models Selection Menu	2-24
2-11 Prediction Model Definitions	2-25
2-12 F4C Prediction Model Definitions	2-25
2-13 Component Prediction Model Definitions	2-26
2-14 Facility Resource Data Selection Menu	2-27
2-15 F4C Resource Description	2-28
2-16 Component Tree Table	2-29
2-17 Basic Task Table	2-29
2-18 Basic Task Information File Editor	2-30
2-19 Unit of Measure List Editor	2-31
2-20 Trade and Costs Data	2-32
2-21 Task Classification Editor	2-32
2-22 Equipment Costs	2-33
2-23 Basic Task File Selection	2-33
2-24 Work Performance Main Selection Menu	2-33
2-25 Work Performance Method--Define Methods	2-34
2-26 Reset All Work Performance Method Indexes	2-35
2-27 Task Work Performance Methods--Entry and Editing	2-35
2-28 Total/Partial Summary Tasks	2-36
2-29 Basic Task Summary Editor	2-36
2-30 F4C Description Editor	2-37
2-31 Facility Consistency Check	2-37
2-32 Reference Data for Facilities Selection Menu	2-38
2-33 Subinstallation Descriptions	2-38
2-34 Installation Area Descriptions	2-39
2-35 Travel Time Data	2-40
2-36 Special Condition Multiplier Definitions	2-41
2-37 Special Condition Multiplier, Page 1	2-42
2-38 Special Condition Multiplier, Page 2	2-42

FIGURES (Cont'd)

		Page
2-39	Special Condition Multiplier, Page 3	2-43
2-40	Special Condition Multiplier, Page 4	2-43
2-41	Special Condition Multiplier, Page 5	2-44
2-42	Special Condition Multiplier, Summary	2-44
2-43	Financial Management Menu	2-45
2-44	Appropriations Code Table	2-45
2-45	AMS Functional Group Codes	2-46
2-46	F4C to AMS Conversion Table	2-46
2-47	Standard Appropriations/AMS Report Formats	2-47
2-48	Facility Funding Profile	2-47
2-49	Facility Information Selection Menu	2-48
2-50	Resource Calculation	2-49
2-51	Report Information	2-50
2-52	Standard Appropriations/AMS Report Formats	2-51
2-53	Appropriations Code Table	2-51
2-54	AMS Functional Group Codes	2-52
2-55	Display Resources Selection Menu	2-56
2-56	Resource Summary Graph	2-57
2-57	Resource Summary File, Page 1	2-57
2-58	Resource Summary File, Page 2	2-58
2-59	Resource Summary Graph	2-58
2-60	Review and Approval Display or Graph	2-59
2-61	Resource Summary File	2-59
2-62	Financial Data Graph	2-60
2-63	Resource Summary Graph	2-60
2-64	Display Trade Data	2-61
2-65	Component/Task Quantity Takeoff	2-61
2-66	Facility Information	2-62
2-67	Change All Dates	2-62
2-68	General Facility Information	2-63
2-69	Sequential Facility Editor	2-66
2-70	Facility Reports	2-66
2-71	AM5/F4C Summary Report	2-68
2-72	Facility Task Cost Report	2-69
2-73	Display Task/Component Tree Structure	2-70
2-74	Ordered Task Report	2-71
2-75	Range by Facility Group ID	2-72
2-76	Ordered Task Report Generator	2-72
2-77	Yearly by F4C	2-73
2-78	Range by File Name	2-73
2-79	Ordered Task Report Generator	2-74
2-80	Range by File Name	2-74
2-81	Period by Facility Group ID	2-75
2-82	Ordered Task Report Generator	2-75
2-83	Period by F4C Code	2-76
2-84	Range by F4C Code	2-76

FIGURES (Cont'd)

	Page
2-85 Ordered Task Report Generator	2-77
2-86 Range by File Name	2-77
2-87 Maintenance Resource Prediction Reports	2-78
2-88 Standard Appropriations/AMS Report Formats	2-78
2-89 Maintenance Resource Prediction Reports	2-79
2-90 Appropriations Code Table	2-79
2-91 AMS Functional Group Codes	2-80
2-92 Maintenance Resource Prediction Reports	2-80
2-93 Funding Report Print Information	2-81
2-94 Maintenance Resource Prediction Reports	2-81
2-95 Systems Report	2-83
2-96 Resource Summary Input, Screen 1	2-83
2-97 Resource Summary Input, Screen 2	2-84
2-98 Resource Summary Input, Screen 3	2-84
2-99 Financial Report Files Copy	2-85
2-100 Resource Summary Input, Screen 1	2-86
2-101 Resource Summary Input, Screen 2	2-86
2-102 Resource Summary Input, Screen 3	2-87
2-103 Resource Summary Input, Screen 4	2-87
2-104 Resource Summary Input, Screen 5	2-88
2-105 Combine Funding Reports	2-88
2-106 Trade Index Report	2-89
2-107 Facility Information Query	2-90
2-108 Facility Information Query--Data Fields	2-90
2-109 Facility Information Query--Order of Data	2-91
2-110 Installation-Level Model Facility	2-91
2-111 IFS Options	2-93
2-112 Model Facility From IFS Input	2-93
2-113 Model Facility From an Input File	2-94
2-114 Component/Task Quantity Takeoff	2-95
2-115 Facility Information	2-95
2-116 Facility ID Copy Function	2-96
2-117 Facility ID Component CACES Number Changer	2-97
2-118 Facility Group to Dwelling Unit Conversion	2-97
2-119 Delete Resource Files	2-98
2-120 Move Facilities by F4C ID	2-98
2-121 Move Facilities by Facility ID	2-99
2-122 Screen Display for Deleting Resource Total File	2-99
2-123 Installation-Level Review and Approval	2-100
2-124 Review and Approval	2-100
2-125 Review and Approval Report Generation	2-101
2-126 Maintenance Resource Prediction Reports	2-101
2-127 Review and Approval Display or Graph	2-102
2-128 Resource Summary File	2-103
2-129 Resource Summary Graph	2-103
2-130 Report for Total and Components	2-104

FIGURES (Cont'd)

	Page
2-131 Maintenance Resource Prediction Reports	2-104
2-132 Ordered Component and Task Report	2-105
2-133 Yearly by Funding Report	2-105
2-134 Print Yearly by Funding Report	2-106
2-135 Component and Task Period by Funding Report	2-106
2-136 Print Period by Funding Report	2-107
2-137 Financial Report Files Copy Function	2-107
5-1 HVAC Zone Map	5-6
6-1 Maintenance Resource Production Model, Installation Selection Menu	6-2
6-2 Starting the MRPM System	6-2
6-3 MRPM Main Menu	6-3
6-4 Facility Information Selection Menu	6-4
6-5 General Facility Information	6-6
6-6 Installation Level Model Facility	6-8
6-7 Facility Component Quantity	6-8
6-8 Status Message	6-8
6-9 Facility Component, Quantity and Dates	6-9
6-10 Resource Calculation	6-11
6-11 Resource Calculation Processing Screen	6-11
6-12 Resource Calculation Output	6-12
6-13 Display Resources Selection Menu	6-13
6-14 Resource Summary Graph	6-13
6-15 Resource Summary File	6-14
6-16 Resource Summary Graph	6-14
6-17 Facility Component 0611100	6-16
6-18 Facility Component 0611300	6-16
6-19 F4C Input Screen	6-17
6-20 AMS Input Screen	6-18
6-21 Ordered Task Report Generator	6-20
6-22 Yearly by Facility ID	6-20
6-23 Funding Report Options	6-22
6-24 Appropriation Code Table	6-22
6-25 AMS Functional Group Codes	6-23
6-26 Maintenance Resource Prediction Reports	6-23
6-27 Processing Screen	6-24
6-28 Funding Report Print Information	6-24
6-29 Maintenance Resource Prediction Reports	6-25
6-30 Review and Approval, Display or Graph	6-26
6-31 Review and Approval, Display	6-26
6-32 Review and Approval, Graph	6-27
6-33 Resource Summary Report	6-28
6-34 Resource Summary Report - Input Screen	6-28
6-35 Facility Totals Report, Input	6-29
6-36 Facility Totals Report, F4C Input	6-30
6-37 Facility Totals Report, Contents	6-30

FIGURES (Cont'd)

	Page
6-38 Combine Funding Reports	6-31
6-39 Trade Index Report	6-32

TABLES

2-1 Organizational Codes and Descriptions for Personal Computer Files	2-5
2-2 Area Cost Factor Indexes	2-10
2-3 Travel Zones and Times	2-40

PROCEDURES LISTED IN ORDER OF PERFORMANCE

	Page
1. Hardware and Software Requirements	5-1
2. Loading MRPM Into Your Computer	5-1
3. Entering the MRPM System	5-3
4. Loading Basic Information About Your Installation	5-4
5. Entering Updated Installation Information	5-7
6. Modifying Existing Basic Task Information	5-7
7. Adding New Tasks to an Existing Component	5-7
8. Adding New Components and Tasks	5-7
9. Adding a New Facility	5-7
10. Performing Resource Prediction Calculation	5-7
11. Display Resource Predictions	5-7
12. Obtaining Appropriation Resource Summary Information	5-7
13. Sending Summary Information to the MACOM	5-10
14. Saving Files	5-10
15. Restoring Information	5-11
16. Leaving the MRPM System	5-12
17. Modeling a Facility for the MRPM System	5-12
18. Procedure to Split a Facility Group Into Individual Facilities, Dwelling Type, and Individual Dwelling Unit	5-12
19. Procedure To Create a New Directory for Facilities Storage Storage	5-14
20. Download Data From IFS	5-15

MAINTENANCE RESOURCE PREDICTION MODEL (MRPM) USER'S MANUAL

1. INTRODUCTION.

1.1 Basic Operation Description. The MRPM system should be located in the estimating section of your organization. Your estimators are the only people that receive all project-related work requests and understand the total workload.

The Maintenance Resource Prediction Model (MRPM) system is a tool to help plan and program resources based on the anticipated requirements of the actual facilities at an installation.

The MRPM system is a multiyear cost estimating system for determining maintenance resources. Prediction periods can range between 1 and 10 years.

The MRPM system allows you to define: (1) individual facilities or individual dwelling units as in your current Building Information Schedule or (2) groups of facilities that were constructed during the same year from the same construction drawings and are being completely maintained as a single unit (e.g., all roofs are replaced in the same year, all heaters are replaced in the same year).

MRPM allows you to manage your facilities by the exception rule. The system assumes work progresses by your schedule unless the system is told to reschedule specific tasks or events. When work is performed on schedule, you do not have to tell the system the work was completed. When the work is performed ahead or behind schedule, in terms of years, you may want to tell the system the new schedule if large costs are involved and/or the new schedule differs greatly from the old one.

Facilities are described by entering the facility components (e.g., roof, carpet, doors, sinks). Within a facility, the system will process one component at a time.

The MRPM uses an eight-step process to estimate resource requirements for a facility:

The first step is to schedule the future component replacement dates. This scheduling can be performed in one of three different ways:

1. When the components are being maintained according to the standard maintenance practices and are lasting the normal or average component life, you do not have to enter any information about component replacement dates. The system will start with the year of construction and add the average component life to determine the last replacement date before the report period. The average component life will be added to the last replacement date to produce the next scheduled replacement date. You do not have to input any information when the normal progression of events occurs.

2. When high-cost components are replaced earlier or later than the average component life, you can improve the accuracy of your prediction by entering the actual date of last component replacement. MRPM will add the average component life to the date of the actual last component replacement to determine the next scheduled replacement dates. Only replacement dates for high-cost components such as roofs, floors, and furnaces need to be entered. Entering replacement dates for low-cost components

such as electrical switches, faucets, and window hardware does not substantially improve the accuracy of the resource prediction.

3. When you have actually or tentatively scheduled the next replacement date for a high-cost component that is different from the average life, you can improve the accuracy of your prediction by entering that next scheduled replacement date. MRPM will continue to estimate normal maintenance for the component until your next scheduled replacement date. Only scheduled replacement dates for high-cost components such as roofs, floors, and furnaces need to be entered. Entering scheduled replacement dates for low-cost components does not substantially improve the accuracy of the prediction. For example, say the computer had scheduled a 1999 replacement, but actual replacement will occur in 1996. You enter a next component replacement date of 1996.

The second step is to place the tasks that must be performed between component replacements in their proper year of occurrence. The system maintains a complete list of all tasks that must be performed during the life of each component. Starting with the replacement date, MRPM will add the average period of time between performance of the task to determine the scheduled performance dates. When the next component replacement date is reached, the scheduling will start with the next component replacement date. Only normal maintenance tasks with frequencies greater than once a year will be scheduled in the replacement year.

For example, say you enter a last component replacement date of 1981. Assume the painting task for the component would be performed on average once every 10 years. The life of the component averages 40 years. Painting would be scheduled in 1991, 2001, and 2011. Painting would not be scheduled in 2021 since the component would be replaced.

MRPM will divide the average task frequency (the time between subsequent execution of the same task) by the correct combination of special condition multipliers (SCM) to produce a shorter, more accurate frequency based on the occupant and weather effects on the facility. For example, if the average task frequency is 10 years, all interior work has an SCM of 1.1, all door work has an additional SCM of 1.2; then, the adjusted frequency would be $10 \text{ years} / (1.1 \times 1.2)$ or 7.58 years.

The third step is to determine the number of times (occurrences) each task will be performed during each year. For example, one facility group is composed of 10 identical facilities. Each facility has 20 doors. Thus, there are 200 doors total. Normally, the first door will need painting 8 years after installation. The average door will need painting every 10 years, and the last door will need painting every 12 years. There are then 5 years between painting the first and last door ($12 - 8 + 1$). If you assume that the same number of doors will be painted each of the 5 years, then 40 doors (200 doors/5 years) will be painted on each of the 8th, 9th, 10th, 11th, and 12th years after the doors were installed. The number of task occurrences would be 40 in each year.

The fourth step is to determine the labor and equipment hours to perform all 40 painting tasks in a given year. This is performed by reading the labor and equipment hours required to paint one door from the Army-wide Basic Task Table (labor hours = 0.33 hrs/door, equipment hours = 0.33 hr/door). Total hours would be $40 \text{ occurrences} \times 0.33 \text{ hr/occurrence} = 13.2 \text{ hr}$.

The fifth step is to determine the labor, material, and equipment costs to paint all 40 doors in one year. Material cost is calculated by reading the material costs to paint one door from the Army-wide Basic Task Table (\$3.06/door) and multiplying by the number of occurrences to produce the material cost of \$122.40 ($\$3.06/\text{occurrence} \times 40 \text{ occurrences}$). Labor costs are calculated by determining the correct

work performance method (in-house, contract, self-help, troop) and obtaining the cost per hour for the painting shop (in-house: \$17.55/hr). Total labor costs are then \$17.55/hr x 13.2 hr or \$231.66. Equipment costs are calculated by determining the correct work performance method (in-house, contract) and obtaining the cost per hour for the painting shop equipment (in-house: \$2.90/hr). Total equipment costs are then \$2.90/hr x 13.2 hr or \$38.28.

The sixth step is to add the labor, material, and equipment costs to obtain a total dollar cost of \$231.66 + \$122.40 + \$38.28 or \$392.34.

The seventh step is to perform steps two through six for all tasks under the component and then to add the results from each task to obtain one total summary for the component. The total number of occurrences for a component would mean the total number of individual tasks to be performed on that component during that year. The hours and dollars would mean the total number of hours and dollars estimated for that one component during that year.

The eighth step is to sum resource requirements for (1) all components under one subsystem, then (2) all subsystems under one system, and then (3) all systems under the total facility. The number of occurrences for the total facility means the total number of individual tasks to be performed on the total facility during that year.

Many users do not want to spend the time to completely describe the components within the facility but want to obtain a resource prediction based on year of construction, F4C code, and primary unit of measure (gross square feet of floor area). Research was performed at 10 installations in the United States and Germany. Typical facilities in each F4C area were modeled in detail and the labor hours, equipment hours, and material costs were determined for each year of age of the facility. The resources were divided by the primary unit of measure (floor area) to produce a requirement per square foot of floor area. Resource requirements for all facilities were added together by age and the average resource requirements by age of facility were obtained. This data can be used in making resource predictions.

1.2 System Organization. There are two types of MRPM systems.

1.2.1 Facility Summary (PC) System. This system is designed for use by installations, Major Commands (MACOM), and Department of the Army (DA). Data can be transferred from one organization to the next higher organization in the chain of command. There are two versions of the summary system. One is located within HQ-IFS and the second is a standalone DOS-based personal computer system.

This system combines individual facilities into groups of facilities. One group is formed for each unique set of four items:

1. Appropriation
2. Temporary or permanent facilities
3. Current use code
4. Construction year.

Resource calculations produce only three cost-related resource figures:

1. Replacement task costs
2. Nonreplacement task costs
3. Total costs (replacement and nonreplacement).

1.2.2 Individual Facility Component System. This is a personal computer-based system that allows the user to define a facility by listing the components found within the facility. The system predicts labor hours, equipment hours, material cost, labor cost, equipment cost, and total cost resource estimates for individual tasks, components, subsystems, systems, and the total facility.

1.3 User Manual Organization. This user's manual covers the individual facility component system only and is designed to be used with the MRPM screens. The information in this manual complements that on the screen. The manual describes the system operations at the installation, MACOM, and Army levels. Chapter 2 describes each function as it appears on the screen within the system. Each screen is shown in a figure and the function of each selection is defined. Chapter 3 presents the review and approval functions to be used at the MACOM level. Chapter 4 contains procedures for the review and approval functions to be used at Headquarters, Department of the Army (HQDA) level. Chapter 5 describes how to set up your PC for using the MRPM system. Chapter 6 contains procedures for learning and using the MRPM system.

1.4 An Overview of the Total Process.

1.4.1 Introduction. The MRPM activities can be divided into two basic sets. The first set of activities relate to the initial setup of your installation data. The second set of activities relate to the annual work that is required. Figure 1-1 shows an overview of the system and will be referenced throughout the section.

1.4.2 Initial Setup. The first step is to check the hardware and software requirements listed in Section 5.1. The second step is to load the MRPM programs and Army-wide facility resource files into your computer as described in Section 5.2. The third step is to enter your installation-specific resource information as described in Section 5.4. The fourth step is to decide how you will store your facilities and determine the subdirectories that you will need as defined in Section 1.8. The directory location table must be updated to show locations of the subdirectories.

Part of your installation resource data can be downloaded from your corporate data base (such as IFS) through an ASCII file. The content and format for this file is given in Section 2.3.8.1 This data includes the facility ID, current use code, construction year, and primary unit of measure.

You can collect and enter your facility component data (i.e., 2350 square feet of shingle roof) as described in Sections 1.5 and 2.3.8.3. This will be your largest effort.

1.4.3 Annual Work. Updating of your facility component information (Figure 1-1, Circle 1) is only required when major replacement work has been scheduled. Since your estimators have prepared a cost estimate for this work they are the ideal people to enter the year the major work was performed. This should be made an integral part of the estimating process.

The first step in preparing your planning and programming documents is to update your installation resource files (Figure 1-1, Circle 2). The two files that need updating are the trade and cost table and the report period table. The reporting years must be incremented by one year and the material time adjustment factor must be changed.

You can now perform calculations (Figure 1-1, Circle 3) for your base facilities first and then your regular facilities. The calculation program uses the Army-wide facility resource files, the facility description files, and the installation resource files to produce one resource summary file for each facility

that contains task, component, subsystem, system and total facility resource information. The total facility resource summary record for each individual facility is placed into the facility total resource summary file.

The resource summary files can be displayed on the screen in both table and graphic format (Figure 1-1, Circle 4). The information displayed on the screen can be printed on paper also.

The resource summary files can be combined to form a number of different reports (Figure 1-1, Circle 5). the reports can be stored in a file for transfer to other computer systems and also printed on paper.

You can query the data to produce answers to specific questions (Figure 1-1, Circle 6). Reports are printed on your printer.

1.4.4 Army-Wide Resource Files. The Army maintains a number of tables in the MRPM system. You do not have to edit these tables. The tables are used by the calculation and modeling programs. The basic Army information functions are as follows:

1. Organization Chart
2. Recurring Maintenance Factors (RMF)
3. F4C Conversion Codes
4. Unit Cost Factors
5. F4C Resource Description Table
6. Component Tree Table
7. Basic Task Table
8. Unit of Measure
9. Task Classification
10. Total/Partial Summary
11. F4C Description Editor
12. Travel Zone.

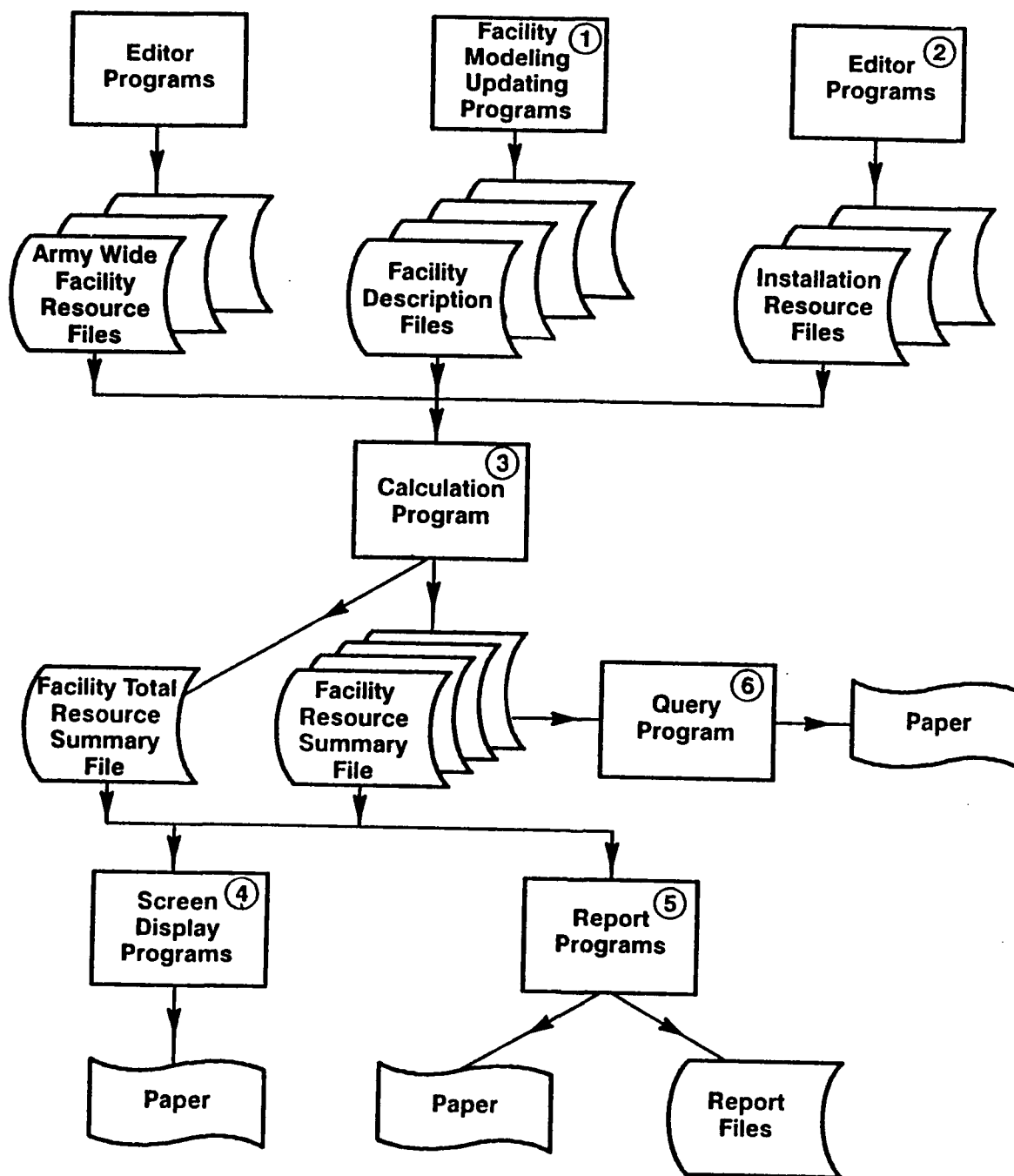


Figure 1-1. MRPM Overview

1.4.5 Installation Resource Files. The installation must maintain a number of tables in the MRPM system. With the exception of the cost tables, the tables are normally edited only once during system initialization. The basic information installation functions are as follows:

1. Report Periods
2. Directory Location
3. Trade and Costs
4. Work Performance Methods
5. Area Identification
6. Subinstallation Identification
7. Special Condition Multiplier
8. Facility Funding Profile.

1.4.6 Facility Description File. The general information about a facility is stored in the general information file of your primary directory (i.e., \DATA\Y2). When you are using subdirectories to store facilities, each subdirectory has a general information file containing only facilities in the subdirectory.

When you enter components for a facility, MRPM creates two files for each facility. One file contains the component descriptions, quantities, and scheduling dates. The second file contains the tree structure defining how tasks are combined into components, components combined into subsystems, subsystems into systems, and finally, systems into a total.

Functions include:

1. General Information
2. Model Facilities
3. Facility Component and Quantity Editor.

1.5 Facility Modeling Options. There are several different ways that you can define a facility within the general facility information file in MRPM>

1.5.1 Single Use Facilities. A facility being used by only one organization for only one current use can be entered as a single facility in the general facility information table.

1.5.2 Multiple Use Facilities. A facility that is being occupied by several different users or the same user for several different current uses can be modeled by several methods:

1. Separate facilities such as family housing apartment buildings - A separate facility can be defined for each apartment and one facility for all common areas of the facility including the roof, exterior walls, basement, and halls.

2. Single basic facility - One facility can be defined for the entire facility. This facility is known as the base facility and must carry an F4C code of 0000000. The base facility is never included in any report summary since it does not have a valid F4C code. An individual entry in the general facility information table should be made for each user or current use within the facility. The facility ID of the total facility must be entered as the Base Facility ID. The percentage of the space occupied by each user or current use can be entered under the percentage of base facility in the general facility information table.


```

*****
EDITOR - General Facility Information                                06/23/87
*****
*****
Seq [1037] Command Mode
(1) Subinstallation [01] North Sector
(2) Area [01] SALERNO CIRCLE
(3) Facility ID[P12345ABC] [ADMINISTRATIVE]
(5) F4C Code [6101100] [ ]
(6) Number in F/G [ 1]
(7) Travel Zone [ 3]
(8) Square Feet [ 18675]
(9) Construction Year [1982]
(10) W/P Method Index [1] minor-inhouse,major-contract
(11) Special Cond. Mult.ID[01]Normal Conditions
(12) Scheduled disposal date [01/01/99] [mm/dd/yy]
(13) Last Changed Date [ ] [mm/dd/yy]
(14) Last Calculation Date [04-20-87] [mm/dd/yy]
(15) Facility Funding Profile[01] Test
(16) Calculation Modeling Id [1] (1:4) As Entered
(17) Directory Specified [ ] (blanks if none)
*****
F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 MASK F7 ADD F8 DEL F9 F10EXIT

```

Figure 1-3 Standard Screen Display

Each screen is divided into three sections. The top section displays titles or headings that indicate your current location in the MRPM system. The bottom section is the last line on the screen and displays the function keys that are currently active for your use. The middle portion of the screen displays the information that can be changed at the terminal.

1.7.2 Standard Keys.

<u>Key Name</u>	<u>Action</u>
1. Page Up	To move to the previous record or screen of records to be displayed.
2. Page Down	To move to the next record or screen of records to be displayed.
3. Arrow Keys	To move up (↑) or down (↓) to the next field (input value) or to move to the previous (←) or next (→) character in a field being edited.
4. F1 (TOP)	To display the first record or screen of records.
5. F2 (BOT)	To display the last record or screen of records.
6. F3 (FIND)	To locate a known item within a table. The system will highlight the Area where you are to type the item to be located. After typing the item to be located, press the ENTER key to perform the location. Special functions require the F3 FIND key to be entered.
7. F4 (LIST)	To produce a printed listing of the complete table on your printer.
8. F5 (EDIT)	To edit the information within the record(s) displayed on the screen.
9. F6 (SELECT)	To choose a table for review or editing.
10. F7 (ADD)	To add a new entry into the table.
11. F8 (DEL)	To remove an existing entry from the table.
12. F9 (SAVE)	To save the changes and leave the edit or add function.
13. F10 (EXIT)	To <u>not</u> save the changes, leave the edit or add function, go back to previous screen.
14. Selection Key	To make a selection from any menu, move the arrow or blinking (enter)underscore, known as the cursor, using the ↑↓ arrow to the item to be selected and press the ENTER key.
15. Ctrl-C	To stop printing.
16. (Print Screen)	To print the current contents of the screen on your printer.

1.8 Initial Setup for a Reporting Organization.

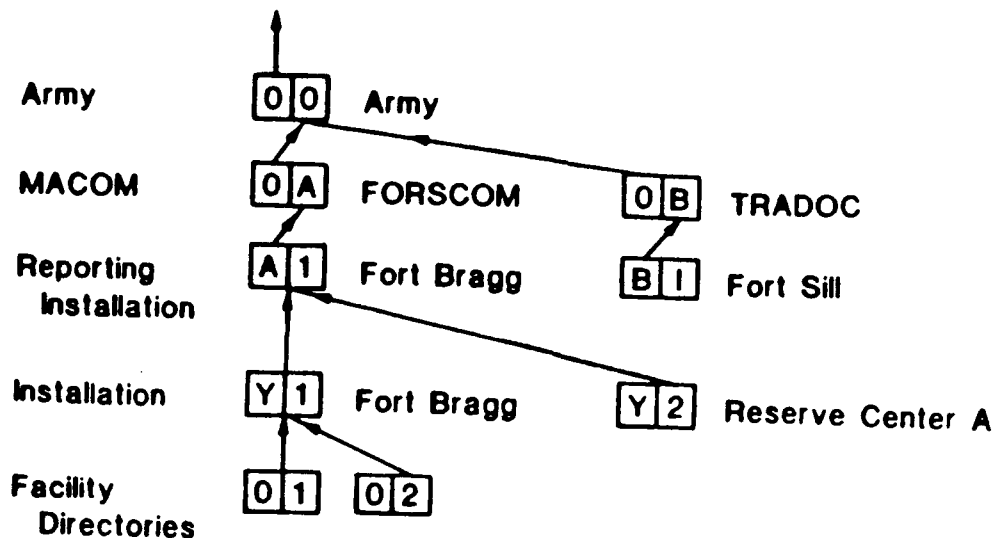


Figure 1-4. Standard MRPM Army Organizational Chart by Organization Codes

A reporting installation is defined as the organization that prepares and submits a Technical Data Report to a MACOM. Reporting installations (A1 Bragg in Figure 1-3) are currently listed in the MRPM organizational chart under each MACOM (0A FORSCOM in Figure 1-3).

All organization codes are established as follows: (1) the first character identifies the next higher organization (i.e., MACOM for installations), (2) the second character identifies the individual reporting organizations under the next higher organization (i.e., each installation for one MACOM).

Several installations may report through one reporting installation. During initial MRPM setup, the reporting installation must add each of its installations to the Organizational Chart. The main or primary installation should be given the organization code Y2. Other installations can be numbered Y3, Y4, etc. The MACOM ID should be the organizational code for the reporting installation.

For efficiency, facilities are stored in many different directories. There should be no more than 300 facilities in any one facility directory. Facility directories are numbered from \01 to \99. Each directory normally contains a homogenous set of facilities: (1) all facilities located in several housing areas; (2) all facilities located in one housing area; (3) 300 facilities located in one housing area, or (4) all administration buildings. The reporting installation will enter each facility directory as an organizational code. The MACOM ID should be the installation's organizational code (Y2, Y3, Y4).

Your first step in setting up your reporting installation is to list all installations under the reporting installation and assign IDs (Y3, Y4, Y5, etc.). The second step for each installation is to review the number of facilities by F4C code and determine how you will divide them into facility directories and assign facility directory IDs (Y3:01-06, Y4:07-10, Y5:11-21, etc.). The third step is to enter this information into the computer.


```

#####
|
|  SETUP NEW INSTALLATION
|
|  1)  ENTER NEW INSTALLATION NAME:
|      FORT BRAGG
|  2)  ENTER DIRECTORY NAME: E:\DATA\Y2
|      ex: A1, A2, or B2 ...
|  3)  ENTER STARTING SUBDIRECTORY: E:\23
|      ENTER ENDING SUBDIRECTORY: E:\34
|
|#####

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 1-6. Installation Setup

You are now ready to enter the MRPM system. Highlight the primary installation and press the ENTER key. The system will automatically transfer you to the correct directory. Now type MRPM and press the ENTER key. Follow the procedure in Chapter 5 titled "Loading Installation Data Tables."

2. INSTALLATION FUNCTIONS.

This chapter describes all functions of the system in the order that the functions appear on the screen. The manual shows the screens as each function is defined. Appendix A contains a chart showing all selection items and all screens.

2.1 Maintenance Prediction Model Main Menu.

```

#####
Maintenance Prediction Model
Main Menu
#####

Basic Information
Facility Information
Review and Approval
Research
Special Programs

Updated 12 Sep. 1988
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-1. Maintenance Prediction Model Menu

Five types of functions are available:

1. Basic Information--these functions allow you to maintain tables that contain the general information required to define the installation's maintenance policies.
2. Facility Information--these functions allow you to define general information about each facility, model its components, perform resource prediction calculations, obtain reports, and ask questions related to a facility or group of facilities.
3. Review and Approval--these functions allow you to calculate resource summary files by appropriation and Army Management System (AMS) codes. You can display the resources on the screen for review and generate the resource prediction information required by higher headquarters.
4. Research--these functions allow researchers to analyze your resource data. The functions are not defined in this manual.
5. Special Program--these functions allow researchers to perform special functions and are not defined in this manual.

2.2 Basic Information Selection Menu.

```

#####
#                                     #
#          Basic Information          #
#          Selection Menu            #
#                                     #
#####

General Information

Prediction Models

Facility Resource Data

Data for Individual Facilities


Updated 12 Sep. 1988
#####
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-2. Basic Information Selection Menu

Four types of data can be accessed through this set of screens:

1. **General Information**--tables dealing with organizational charts, Recurring Maintenance Factors (RMFs), F4C to AMS conversion tables, and reporting periods.
2. **Prediction Models**--tables that contain the calculation methods that are available to you and the calculation methods you have chosen to use for facilities and components of facilities.
3. **Facility Resource Description Data**--tables that define all of the possible components in a type of facility (such as buildings) and the tasks that must be performed to keep the facility in a standard maintenance condition under average usage and weather conditions, and tables that contain your labor and equipment costs.
4. **Reference Data for Individual Facilities**--tables that define common information for many facilities: geographic area on post, travel zones, and special condition multipliers.

2.2.1 General Information.

```

=====
#                                     #
#           General Information         #
#           Selection Menu             #
#                                     #
=====

Organization Chart

RMF Factors

F4C Conversion Codes

Report Periods

Unit Cost Factors

Directory Location


Updated 12 Sep. 1988
=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT
```

Figure 2-3. General Information Selection Menu

2.2.1.1 Organization Chart. This table lists all major reporting organizations in the Army.

ORGANIZATIONAL CHART					PAGE 1		
ORG NO	ORG ID	INST ID	ORGANIZATION DESCRIPTION	MACOM ID#	RELATION CODE	SUB CODE	
001	00		*ARMY	XX			
002	0A		*FORSCOM	00			
003	A1		*FT. BRAGG	0A			
004	A2		*FT. CAMPBELL	0A			
005	A3		*FT. CARSON	0A			
006	A4		*FT. DEVENS	0A			
007	A5		*FT. DRUM	0A			
008	A6		*FT. HOOD	0A			
009	A7		*FT. INDIANTOWN GAP	0A			
010	A8		*FT. SAM HOUSTON	0A			
011	A9		*FT. LAWTON	0A			
012	A0		*FT. LEWIS	0A			
013	AA		*FT. MCCOY	0A			
014	AB		*FT. MCPHERSON	0A			
015	AC		*FT. MEADE	0A			

F1 TOP F2 BOT F3 F4 LIST F5 EDIT F6 F7 ADD F8 DEL F9 F10EXIT

Figure 2-4. Organizational Chart

Each organization in the Army has been assigned a unique two-character MRPM organizational ID, which is listed in the second column of this table (ORG ID). This ID is used to identify the owner organization of MRPM files and is a part of the naming convention of all appropriation AMS resource summary files. The ID for your organization should be entered in the report dates file when you first install the MRPM system. All IDs are listed in Table 2-1. The installation ID and relation ID are not used at present, but can be copied directly from the IFS data base if required at a later date. The ORG No. in column one is used only to keep track of where the data for an organization is stored in the table.

Table 2-1. Organizational Codes and Descriptions for Personal Computer Files

00-Army	<u>Climate Zone</u>		<u>Climate Zone</u>
<u>0A-FORSCOM</u>		BG-Fort Pickett	5
A1-Fort Bragg	3	BH-Fort Rucker	2
A2-Fort Campbell	5	BI-Fort Sill	3
A3-Fort Carson	8	BJ-Fort Leonard Wood	5
A4-Fort Devens	7	BK-Carlisle Bks	6
A5-Fort Drum	8		
A6-Fort Hood	2	<u>0C-USAISC</u>	
A7-Fort Indiantown Gap	6	C1-Fort Huachuca	4
A8-Fort Sam Houston	2	C2-Fort Ritchie	6
A9-Fort Lawton	8		
A0-Fort Lewis	8	<u>0D-AMC</u>	
AA-Fort McCoy	9	D1-Anniston AD	3
AB-Fort McPherson	3	D2-AMMR	7
AC-Fort Meade	6	D3-Harry Diamond Lab	6
AD-Fort Riley	6	D4-Letterkenny AD	6
AE-Fort Sheridan	7	D5-Lexington-BG AD	6
AF-Fort Stewart	2	D6-New Cumberland AD	6
AG-Fort Irwin	3	D7-Picatinny ARS	6
AH-Presidio of SF	5	D8-Pine Bluff ARS	3
AI-Vancouver Bks	9	D9-Red River ARS	2
AJ-Yakima Firing Ctr	7	D0-Redstone ARS	3
AK-Fort Greely	11	DA-Rock Island ARS	7
AL-Fort Richardson	11	DB-Rocky Mtn ARS	8
AM-Fort Wainwright	11	DC-Sacramento AD	4
AN-Petroleum Div	11	DD-Savanna AD	7
AO-Panama	1	DE-Seneca AD	8
AP-Fort Ord	5	DF-Sharpe AD	4
AQ-Fort Polk	2	DG-Sierra AD	7
		DH-Tobyhanna AD	7
<u>0B-TRADOC</u>		DI-Tooele AD	7
B1-Fort Belvoir	6	DJ-Watervliet ARS	8
B2-Fort Benning	3	DK-Corpus Christi AD	1
B3-Fort Bliss	3	DL-McAlester AAP	3
B4-Fort Chaffee	3	DM-Pueblo DA	7
B5-Fort Dix	6	DN-Fort Wingate DA	3
B6-Fort Eustis	5	DO-Umatilla DA	5
B7-Fort Gordon	3	DP-Detroit ARS	8
B8-Fort Benjamin Harrison	6	DQ-Fort Monmouth	6
B9-Fort A. P. Hill	5	DR-Jefferson PG	6
BA-Fort Knox	5	DS-St. Louis Sup Ctr	5
BB-Fort Leavenworth	6	DT-Selfridge Sup Ctr	8
BC-Fort Lee	5	DU-Natick Dev Ctr	7
BD-Fort McClellan	3	DV-White Sands MR	3
BE-Fort Monroe	5	DW-Yuma PG	1
BF-Fort Hamilton	6	DX-Dugway	7

Table 2-1 (Cont'd)

<u>Climate Zone</u>		<u>Climate Zone</u>	
DY-Aberdeen PG	6	<u>0I-COE</u>	
DZ-Badger AAP	8	I1-COE	
P1-Cornhusker AAP	7		
P2-Holston AAP	5	<u>0J-USMA</u>	
P3-Indiana AAP	6	J1-USMA	7
P4-Iowa AAP	7		
P5-Joliet AAP	7	<u>0K-USAEUR</u>	
P6-Kansas AAP	5	K1-V Corps	11
P7-Lake City AAP	5	K2-VII Corps	11
P8-Lone Star AAP	2	K3-21st Sup Cmd	11
P9-Longhorn AAP	2	K4-SETAF	11
PO-Louisiana AAP	2	K5-7th ATC	11
PA-Milan AAP	3	K6-HQ 26th Sup Cmd	11
PB-Newport AAP	6	K7-DEH Berlin	11
PC-Radford AAP	5		
PD-Ravenna AAP	7	<u>0L-USARJ</u>	
PE-Riverbank AAP	4	L1-HONSHU	
PF-Scranton AAP	7	L2-Okinawa	
PG-Sunflower AAP	5		
PH-Twin Cities AAP	9	<u>0M-BMDSC</u>	
PI-Ethan Allen FR	7	M1-Kwajalein	
PJ-Volunteer AAP	3		
PK-Hawthorne AAP	4	<u>0N-KOREA</u>	
PL-Mainz AD	11	N1-Korea	
PM-Lima AMC	7		
		<u>0O-WESTCOM</u>	
<u>0E-INSCOM</u>		01-Westcom	
E1-Arlington Hall Stn	6		
E2-Vint Hill Farms	6		
<u>0F-HSC</u>			
F1-Fort Detrick	6		
F2-Fitzsimmons Med Ctr	8		
F3-Walter Reed Med Ctr	6		
<u>0G-MDW</u>			
G1-MDW	6		
<u>0H-MTMC</u>			
H1-Bayonne MOT	6		
H2-Oakland AB	5		
H3-Sunny Point MOT	3		
H4-Gulf Outport	2		

All major reporting installations are responsible for the management and reporting of several smaller installations. When you first load the system into your computer, you will need to enter each of the smaller installations that has a unique IFS installation ID and reports through your installation. Always use "Y" as the first character of the ORG ID and the numbers 1 through 9, then letters A through Z as the second character. Always use your installation's ORG ID as the MACOM ID (parent organization) for each smaller installation.

2.2.1.2 RMF Factors. This table has been developed by HQDA and lists the installation's RMFs by AMS codes. The RMFs have been calculated by averaging the past 5 years' data as reported in the Technical Data Report.

*****RMF FACTORS*****		

Figure 2-5. RMF (OCE) Factor File

MRPM allows a different RMF for facility ages 1 through 80. This table contains the recurring maintenance factors for your installation. When the same RMF values apply to several sequential AMS codes, a range of AMS values can be specified for one set of RMFs. If the same RMF value will be used for each of the 80 years, this value is entered as the default RMF. The system will automatically enter this value in each of the 80 years.

2.2.1.3 F4C Conversion Codes. This table lists all F4C codes and the appropriate AMS code conversion values for each. The table has been copied directly from HQ-IFS.

F4C TO AMS CONVERSION TABLE			
F4C CODE	AMS NUMBER	F4C CODE	AMS NUMBER
111000	K5210	1132100	K5220
1111000	K5210	1133000	K5210
1111100	K5220	1133100	K5210
1112000	K5210	1133200	K5210
1112100	K5220	1133300	K5220
1113000	K5210	1133400	K5220
1113100	K5220	1133500	K5220
1114000	K5210	1134000	K5210
1114100	K5220	1134100	K5220
1121000	K5210	1135000	K5210
1121100	K5220	1135100	K5220
1122000	K5210	1136000	K5210
1131000	K5210	1136100	K5220
1131100	K5220	1137000	K5210
1132000	K5210	1137100	K5220

F1 TOP F2 BOT F3 FIND F4 F5 EDIT F6 F7 ADD F8 DEL F9 F10EXIT

Figure 2-6. F4C to AMS Conversion Table

2.2.1.4 Report Periods. This tables allows you to enter the name of your installation exactly the way you want it to appear on all reports. You can also enter the current report period beginning and ending years.

Beginning and ending report years are normally changed once per year. The system will automatically perform this function upon request as you edit this information. If you are modeling facilities by components, you must never go backward in time. Component/task calculation will be incorrect and you will destroy your database.

```

=====
Report Periods
=====
Command mode
Name of Installation .....[Funding Reporting System Demo ]
Beginning Report Year .....[1986]
Ending Report Year .....[1995]
Material Location Adjustment [1.000]
Material Time Adjustment ....[1.000]
RMF Time Adjustment .....[1.000]
Organization ID .....[Z1]
Maximum Lines Per Page .....[66]
Virtual Drive Letter .....[F]
Cost Adjustment Factor.....[1.000]
=====
F1      F2      F3      F4      F5 EDIT F6      F7      F8      F9      F10EXIT

```

Figure 2-7. Report Periods

The material costs stored in the database are for the Washington, DC, area. The material location adjustment factor found in Table 2-2 (copied from Army Regulation [AR] 415-17) must be entered to obtain more accurate material costs for your area.

Table 2-2. Area Cost Factor Indexes¹

CONUS Areas

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Alabama	State Average	.86
	Birmingham	.96
	Mobile	.86
	Montgomery	.76
	Anniston Army Depot	.81
	Huntsville	.88
	Fort McClellan	.80
	Redstone Arsenal	.88
	Fort Rucker	.80
Alaska	State Average	2.25
	Anchorage	1.92
	Delta Junction	2.70
	Fairbanks	2.13
	Adak	3.88
	Aleutian Islands	3.86
	Anchorage NSGA	1.92
	Barrow	4.18
	Burnt Mtn.	6.86
	Clear	3.10
	Eielson AFB	2.13
	Elmendorf AFB	1.92
	Galena	3.73
	Fort Greely	2.70
	Fort Richardson	1.92
	Fort Wainwright	2.13
Arizona	State Average	1.02
	Flagstaff	1.02
	Phoenix	.99
	Tucson	1.05
	Fort Huachuca	1.22
	Yuma Proving Ground	1.31
	Yuma	1.31
Arkansas	State Average	.89
	Pine Bluff	.93
	Little Rock	.83
	Fort Smith	.92
	Fort Chaffee	.92
	Pine Bluff Arsenal	.93

¹Source: AF 415-17.

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
California	State Average	1.21
	Los Angeles	1.20
	San Diego	1.18
	Beale	1.28
	Bridgeport NWTC	1.27
	Castle	1.13
	Centerville Beach	1.32
	Desert Area	1.18
	Edwards AFB	1.30
	El Centro	1.27
	George AFB	1.31
	Fort Hunter Liggett	1.29
	Fort Irwin	1.20
	Le Moore NAS	1.20
	March AFB	1.18
	Mather AFB	1.17
	McClellan AFB	1.17
	Monterey Area	1.23
	Presidio of Monterey	1.23
	Norton AFB	1.16
	Oakland Army Base	1.33
	Fort Ord	1.24
	Hueneme Area	1.20
	Riverside	1.18
	Sacramento	1.15
	Sacramento Army Depot	1.15
	Presidio of San Francisco	1.25
	San Nicholas Island	2.59
	Sharpe Army Depot	1.13
	Sierra Army Depot	1.33
	Stockton	1.15
	Travis AFB	1.27
	Vandenberg AFB	1.38
Colorado	State Average	.98
	Colorado Springs	.94
	Denver	1.04
	Pueblo	.96
	Fort Carson	1.01
	Fitzsimmons AMC	1.06
	Pueblo Army Depot	.96
	Peterson AFB	.94
	Rocky Mountain Arsenal	1.06

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Connecticut	State Average	1.13
	Bridgeport	1.16
	Hartford	1.10
	New London	1.14
Delaware	State Average	.99
	Dover	1.04
	Lewes	.98
	Lewes NF	1.04
	Dover AFB	1.04
District of Columbia	Washington	1.03
	Fort McNair	1.03
	Walter Reed AMC	1.03
Florida	State Average	.89
	Miami	.95
	Panama City	.92
	Tampa	.79
	Cape Canaveral	.96
	Cape Kennedy	.96
	Gulf Coast	.85
	Homestead AFB	.88
	Homestead	.88
	Jacksonville Area	.85
	Key West NAS	1.08
	Orlando	.80
	Pensacola Area	.85
	McDill AFB	.77
	Eglin AFB	.77
	Tyndall AFB	.92
Georgia	State Average	.80
	Albany	.82
	Atlanta	.87
	Macon	.70
	Athens	.90
	Atlanta-Marietta	.93
	Fort Benning	.71
	Columbus	.71
	Fort Gillem	.87
	Fort Gordon	.94
	Kings Bay	.93
	Fort McPherson	.87
	Fort Stewart	.84

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Hawaii	State Average	1.28
	Hawaii	1.29
	Honolulu	1.27
	Maui	1.29
	Alimanu	1.27
	Barbars Point NAS	1.34
	Fort Debussy	1.27
	EWA Beach Area	1.34
	Helemano	1.34
	Hickam Army Air Field	1.27
	Kaneohe MCAS	1.34
	Moanalua	1.27
	Pearl City	1.27
	Pearl Harbor	1.27
	Pohakuloa	1.32
	Schofield Barracks	1.27
	Fort Shafter	1.27
	Tripler AMC	1.27
	Wheeler Army Air Field	1.34
Idaho	State Average	1.11
	Boise	1.05
	Idaho Falls	1.08
	Mountain Home	1.19
	Mountain Home AFB	1.20
Illinois	State Average	1.03
	Belleville	.96
	Chicago	1.09
	Rock Island	1.03
	Rock Island Arsenal	1.06
	St. Louis Support Ctr	.96
	Savannah Army Depot	1.05
	Scott AFB	1.03
	Fort Sheridan	1.10
Indiana	State Average	.99
	Indianapolis	1.03
	Logansport	.99
	Madison	.94
	Fort Benjamin Harrison	1.07
	Crane	1.10
	Crane AAP	1.10
	Grissom AFB	1.06
	Indiana AAP	1.02
	Jefferson Proving Ground	.94

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Iowa	State Average	1.02
	Burlington	1.04
	Cedar Rapids	.98
	Des Moines	1.05
	Iowa AAP	1.06
Kansas	State Average	.94
	Manhattan	.97
	Topeka	.96
	Wichita	.88
	Kansas AAP	.94
	Fort Leavenworth	.94
	Fort Riley	.97
Kentucky	Sunflower AAP	.97
	State Average	.96
	Bowling Green	.99
	Lexington	.96
	Louisville	.93
	Fort Campbell	.93
	Fort Knox	.99
	Lexington/Bluegrass Army Depot	1.06
Louisiana	Louisville NAS	.93
	State Average	.92
	Alexandria	.87
	New Orleans	.94
	Shreveport	.94
	Barksdale AFB	.94
	England AFB	.87
	Gulf Outport New Orleans	.94
	Louisiana AAP	.94
Maine	Fort Polk	.94
	State Average	.93
	Bangor	.85
	Caribou	.99
	Portland	.94
	Brunswick	.93
	Cutler	.98
	Northern Area	1.17
Maryland	Winter Harbor	.98
	State Average	.97
	Baltimore	.95
	Fredrick	.94
	Lexington Park	1.01
	Aberdeen Proving Ground	.94
	Annapolis	1.03

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Maryland (cont'd)	Fort Detrick	.94
	Harry Diamond Lab	1.00
	Fort Meade	.95
	Patuxent River Area	1.08
	Fort Ritchie	.90
Massachusetts	State Average	1.10
	Boston	1.13
	Fitchburg	1.08
	Springfield	1.08
	Army Mtls & Mech Research Ctr	1.13
	Fort Devens	1.15
	Natick Research & Development Ctr	1.13
	South Weymouth	1.13
Michigan	State Average	1.06
	Bay City	1.02
	Detroit	1.14
	Marquette	1.03
	Detroit Arsenal	1.14
	Northern Area	1.25
	Republic (Elfcom)	1.10
	Selfridge AFB	1.14
Minnesota	State Average	1.08
	Duluth	1.05
	Minneapolis	1.09
	St. Cloud	1.10
	Twin Cities AAP	1.09
Mississippi	State Average	.84
	Biloxi	.87
	Columbus	.81
	Jackson	.84
	Columbus AFB	.81
	Gulfport Area	.87
	Meridian	.92
Missouri	State Average	.92
	Kansas City	.92
	St. Louis	.99
	Rolla	.85
	Lake City AAP	.93
	Fort Leonard Wood	.91

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Montana	State Average	1.15
	Billings	1.15
	Butte	1.18
	Great Falls	1.12
	Malmstrom AFB	1.12
Nebraska	State Average	1.03
	Grand Island	1.00
	Lincoln	1.05
	Omaha	1.05
	Offutt AFB	1.05
Nevada	State Average	1.18
	Hawthorne	1.26
	Las Vegas	1.13
	Reno	1.15
	Fallon	1.28
	Hawthorne AAP	1.26
	Nellis AFB	1.13
New Hampshire	State Average	1.09
	Concord	1.06
	Nashua	1.06
	Portsmouth	1.14
	Cold Regions Research Lab	1.17
New Jersey	State Average	1.08
	Newark	1.11
	Red Bank	1.08
	Trenton	1.06
	Bayonne	1.10
	Fort Dix	1.03
	Earle	1.10
	Lakehurst	1.05
	Fort Monmouth	1.09
	Picatinny Arsenal	1.20
New Mexico	State Average	1.03
	Alamogordo	.99
	Albuquerque	1.03
	Gallup	1.06
	Holloman AFB	1.05
	Kirtland AFB	1.03
	White Sands Missile Range	1.09
	Bayonne Mil Ocean Term	1.09
	Fort Wingate	1.06

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
New York	State Average	1.12
	Albany	1.07
	New York City	1.24
	Syracuse	1.05
	Brooklyn	1.24
	Fort Drum	1.18
	Fort Hamilton	1.24
	Seneca Army Depot	1.15
	U.S. Military Academy	1.17
	Watervliet Arsenal	1.07
North Carolina	State Average	.76
	Fayetteville	.76
	Greensboro	.75
	Wilmington	.78
	Fort Bragg	.76
	Camp Lejeune Area	.86
	Cherry Point	.86
	Goldsboro	.77
	Pope AFB	.82
	Seymour AFB	.77
	Sunny Point Mil Ocean Term	.78
North Dakota	State Average	1.03
	Bismarck	1.02
	Grand Forks	.98
	Minot	1.10
	Grand Forks AFB	.98
	Stanley R. Hicklesen CPX	1.03
	Minot AFB	1.12
Ohio	State Average	1.00
	Columbus	1.03
	Dayton	.98
	Youngstown	.99
	Cleveland	.14
	Wright-Patterson AFB	.98
Oklahoma	State Average	.93
	Lawton	.90
	McAlester	.91
	Oklahoma City	.98
	Altus AFB	.94
	Enid	1.01
	McAlester AAP	.91
	Fort Sill	.90

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Oregon	State Average	1.05
	Pendleton	1.08
	Portland	1.07
	Salem	.99
	Charleston	1.11
	Coos Head	1.08
	Umatilla Army Depot	1.18
Pennsylvania	State Average	1.00
	Harrisburg	.91
	Philadelphia	1.05
	Pittsburgh	1.04
	Carlisle Barracks	.93
	New Cumberland Army Depot	.91
	Fort Indiantown Gap	1.07
	Letterkenny Army Depot	1.07
	Mechanicsburg Area	.91
	Tobyhanna Army Depot	1.14
	Warminster Area	1.04
Rhode Island	State Average	1.11
	Bristol	1.13
	Newport	1.11
	Providence	1.10
	Davisville	1.17
South Carolina	State Average	.82
	Charleston	.81
	Columbia	.82
	Myrtle Beach	.84
	Beaufort Area.89	
	Charleston AFB	.81
	Fort Jackson	.82
South Dakota	Sumter	.80
	State Average	.95
	Aberdeen	.95
	Sioux Falls	.94
	Rapid City	.96
	Ellsworth AFB	.98
Tennessee	State Average	.84
	Chattanooga	.86
	Kingsport	.72
	Memphis	.95
	Arnold AFB	.90
	Milan AAP	.98
	Holston AAP	.71

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Texas	State Average	.85
	San Angelo	.76
	San Antonio	.86
	Fort Worth	.93
	Fort Bliss	.96
	Carswell AFB	.93
	Chase Field - Beeville	.97
	Corpus Christi Army Depot	.92
	Corpus Christi	.92
	Dallas	.93
	Dyess AFB	.94
	Fort Hood	.89
	Kingsville	.99
	Red River Army Depot	.78
	Fort Sam Houston	.86
	William Beaumont AMC	.96
	Bergstrom AFB	.95
	Brooks AFB	.86
	Randolph AFB	.86
	Kelly AFB	.86
	Lackland AFB	.86
Utah	State Average	1.03
	Ogden	1.05
	Salt Lake City	1.00
	Tooele	1.06
	Dugway Proving Ground	1.03
	Hill AFB	1.07
	Tooele Army Depot	1.05
Vermont	State Average	.99
	Burlington	1.00
	Montpelier	1.00
	Rutland	.96
Virginia	State Average	.95
	Norfolk	.95
	Radford	.95
	Richmond	.94
	Arlington	1.04
	Arlington Hall Station	1.04
	Arlington National Cemetery	1.04
	Fort Belvoir	1.04
	Cameron Station	1.04
	Dahlgren	1.10
	Fort Eustis	.96

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>ACF Index</u>
Virginia (cont'd)	Humphreys Engineer Center	1.03
	Fort A. P. Hill	.92
	Fort Lee	.93
	Fort Monroe	.94
	Fort Myer	1.03
	Norfolk-Newport News Area	.95
	Fort Pickett	.98
	Quantico	1.03
	Nadford AAP	1.02
	Port Story	.95
	Vint Hill Farms Station	1.08
Washington	State Average	1.09
	Spokane	1.08
	Tacoma	1.07
	Yakima	1.11
	Fairchild AFB	1.13
	Jim Creek	1.34
	Fort Lewis	1.07
	Pacific Beach	1.27
	Puget Sound Area	1.15
	Seattle Area	1.12
	Widbey Island	1.12
	Yakima Firing Center	1.18
West Virginia	State Average	.95
	Bluefield	.92
	Clarksburg	.95
	Charleston	.99
Wisconsin	Sugar Grove	1.15
	State Average	1.06
	LaCrosse	1.04
	Madison	1.02
	Milwaukee	1.13
	Badger AAP	1.06
	Clam Lake	1.20
	Fort McCoy	1.11
Wyoming	State Average	1.08
	Casper	1.07
	Cheyenne	1.10
	Laramie	1.08
	F. F. Warren AFB	1.10

OCONUS Areas

<u>State</u>	<u>Location</u>	<u>AFC Index</u>	<u>Currency Exchange</u>	<u>Remarks</u>
Australia	Australia Average	1.24	1.50	Australian Dollar/U.S. Dollar
	Sydney	1.08		
	Darwin	1.44		
	Perth	1.20		
Azores	Azores Average	1.20	158.00	Portuguese Escudo/U.S. Dollar
Belgium	Belgium Average	1.48	1.14	Belgium Franc/U.S. Dollar
Bermuda	Bermuda Average	1.31		
Canada	Canada Average	.97	1.40	Canadian Dollar/U.S. Dollar
	Toronto	.90		
	St. John's	1.06		
	Vancouver	.94		
Caribbean	West Indies Average	1.16	2.40	Trin. & Tob Dollar/U.S. Dollar
Crete	Crete Average	.84	150.80	Drachma/U.S. Dollar
Cuba	Cuba Average	1.56		
Diego Garcia	Diego Garcia Average	2.57		
Egypt	Egypt Average	1.25	.75	Egyptian Pound/U.S. Dollar
Germany	Germany Average	1.17	2.46	Deutsche Mark/U.S. Dollar
Greece	Greece Average	.81	150.80	Drachma/U.S. Dollar
	Athens	.74		
	Inland	.87		
Greenland	Greenland Average	2.75	8.97	Danish Kroner/U.S. Dollar
Guam	Guam Average	1.94		
Iceland	Iceland Average	2.55	111.00	Krona/U.S. Dollar
Italy	Italy Average	1.08	1678.00	Lira/U.S. Dollar
Japan	Japan Average	1.28	200.55	Yen/U.S. Dollar
	Tokyo	1.20		
	Misana	1.39		
	Okinawa	1.25		
Johnston Atoll	Johnston Atoll Average	2.28		
Korea	Korea Average	.91	850.00	Won/U.S. Dollar
Kwajalein	Kwajalein Average	2.17		
Midway Island	Midway Is. Average	2.26		
Morocco	Morocco Average	1.18	12.50	Dirham/U.S. Dollar
Netherlands	Netherlands Average	1.21	2.77	Guilder/U.S. Dollar
New Zealand	New Zealand Average	1.54	2.10	New Zealand Dollar/U.S. Dollar
Oman	Oman Average	1.21	.38	Rial Omani/U.S. Dollar
Panama	Panama Average	1.22		
Philippines	Philippines Average	.88	18.00	Philippine Pesos/U.S. Dollar
Puerto Rico	Puerto Rico Average	1.05		
	San Juan	.94		
	Inland	1.15		
Spain	Spain Average	.98	154.00	Peseta/U.S. Dollar

Table 2-2 (Cont'd)

<u>State</u>	<u>Location</u>	<u>AFC Index</u>	<u>Currency Exchange</u>	<u>Remarks</u>
Turkey	Turkey Average	.68	569.65	Lira/U.S. Dollar
	Istanbul	.60		
	Inland	.76		
United Kingdom	United Kingdom Average	1.01	.69	British Pound/U.S. Dollar

If material costs are not updated yearly, a material time adjustment factor can be used to bring the existing material costs to current resource costs. This factor will be provided to you by headquarters. If the RMF factors are not updated yearly, an RMF time adjustment will be required to modify the existing RMF values for producing current resource requirements. This factor also will be provided to you by headquarters. Each organization has a unique two-character MRPM organization ID which is used to name files in the PC model (Table 2-1).

The number of lines on the printed page can be entered for your printer. For a normal 11-inch long page with 6 lines printed per inch, the value would be 66. This is not currently used by any program. If you have a 3 megabyte random access memory (RAM) board in your computer you must enter the drive letter so the computer knows where this drive is located. If you do not have the added memory, enter "C". If the unit costs by age are not updated yearly, the unit cost by age adjustment factor can be used to modify the existing values to produce current resource requirements. When initially loading your MRPM, enter the appropriate values for each field in the table.

2.2.1.5 Unit Cost Factors. This table allows you to enter unit costs for groups of facilities, such as all administration facilities.

```

=====
UNIT COST FACTORS
=====
ID CODE      : AA
UNIT COST S.C.M. : 1.00
A.R.M. FACTOR : .85
DEFAULT UNIT COST FACTOR: 1.00

YEAR      UNIT COST FACTOR
1          .45
2          .50
3          .55
4          .40
5          .60
6          .50
CUR DN    7          .70
8          .75
9          .80
10         .95
=====
F1 TOP  F2 BOT  F3 FIND F4 LIST F5 EDIT F6      F7 ADD  F8 DEL  F9      F10EXIT

```

Figure 2-8. Unit Cost Factors

These figures are average Army values calculated by detailed research for approximately 15 percent of the Army inventory. If the occupants of your facilities inflict more wear than average, you can adjust this average using the SCM.

The annual recurring maintenance (ARM) factor is a constant factor that includes all tasks which are neither high-cost nor replacement tasks. The default unit cost factor will preset all 80 unit cost factors to the value given. If it is zero, no changes will be made.

The unit cost factors by age include all high-cost and replacement tasks.

2.2.2.1 Prediction Model Definitions. This table defines all prediction model calculation methods available at your installation to predict resource requirements.

```

=====
      PREDICTION MODEL DEFINITIONS
=====
      MODEL NUMBER      1
      MRP-Maintenance Prediction Model
=====
F1 TOP  F2 BOT  F3      F4 LIST F5 EDIT F6      F7      F8      F9      F10EXIT

```

Figure 2-11. Prediction Model Definitions

2.2.2.2 F4C Prediction Model Definitions. This table defines all calculation methods (ALLOWABLE MODELS) allowed to be used for an F4C code or a sequential list of F4C codes. The actual method currently being applied to perform prediction calculations (CURRENT PREDICTION MODEL) at your installation can be defined.

```

=====
      F4C PREDICTION MODEL DEFINITIONS
=====
      STARTING F4C CODE : 000000
      ENDING F4C CODE   : 129999
      CURRENT PREDICTION MODEL : 2
      LAST CALCULATION DATE :
      LAST MERGE DATE      :
      NUMBER OF MODELS ALLOWED : 1
      ALLOWABLE MODELS
      2 RMF-Recurring Maintenance Factors
=====
F1 TOP  F2 BOT  F3 FIND F4 LIST F5 EDIT F6      F7 ADD  F8 DEL  F9      F10EXIT

```

Figure 2-12. F4C Prediction Model Definitions

2.2.3 Facility Resource Data.

```

*****
#                                     #
#          Facility Resource Data      #
#          Selection Menu              #
#                                     #
#                                     #
#                                     #
#                                     #
#                                     #
# F4C Resource Description Table       #
# Component Tree Table                #
# Basic Task Table                    #
# Unit of Measure                     #
# Trade and Costs                     #
# Task Classification                  #
# Equipment and Costs                 #
# Work Performance Methods             #
# Total/Partial Summary Tasks         #
# F4C Description Editor               #
# Facility Consistency Check           #
#                                     #
#                                     #
#                                     #
# Updated 12 Sep. 1988                #
*****
F1    F2    F3    F4    F5    F6    F7    F8    F9    F10EXIT
```

Figure 2-14. Facility Resource Data Selection Menu

2.2.3.1 F4C Resource Description Table. The data in the following four tables has been developed by HQDA. It is average data based on normal operating conditions in the Washington, DC area. Adjustments to consider actual operating conditions can be made through the SCM table described later in this user's manual. You can modify the data to describe your installation's work methods more accurately.

Every type of facility, such as buildings, requires five tables that describe resource requirements. Different tables can be applied for different ranges of years. This screen identifies the names of the tables to be applied for each F4C range:

```

*****
  INSTALLATION LEVEL
  BASIC INFORMATION
  F4C RESOURCE DESCRIPTION
*****

*****
  BEGINNING F4C      : 1000000
  ENDING F4C        : 1300000
  TREE-ID TABLE    : BF
  BASIC TASK TABLE  : A5
  TOTAL SUMMARY TABLE : AT
  PARTIAL SUMMARY TABLE: P5
  UNIT COST ID TABLE : AA
  BEGINNING YEAR     : 0000
  ENDING YEAR        : 9999
*****

```

F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 F7 ADD F8 DEL F9 F10EXIT

Figure 2-15. F4C Resource Description

1. Component/Task Tree ID Table: every facility type can be divided into systems, subsystems, components, and tasks. Tree tables describing this division have a unique two-character ID and contain all divisions of a facility from the total facility through the tasks at the bottom of the tree.

2. Basic Task Table: all information related to task resources is stored in the basic task tables. A general facility type such as buildings may have one tree table, but several basic task tables (e.g., one for housing, administration, and training). Each table has a unique two-character ID.

3. Total Summary Table: to allow you to model facilities using floor area, systems, or components without going to the individual task level, detailed models of sample facilities at 10 installations were developed. The resources were averaged to produce an Army-wide labor, material, and equipment resource requirement for each system, subsystem, and component of the facility. Buildings may have several summary tables--one for housing, administration, and training. Each table has a unique two-character ID.

4. Partial Summary Table: MRPM gives you the option of keeping track of each individual high-cost task separately and lumping all other tasks into one partial component summary task. This table contains the resources for the sum of all low-cost tasks. Partial summary tables are identical in format to the total summary table.

5. Unit Cost Table: this table contains the annual recurring maintenance factor and the high-cost and replacement task unit cost factors for this facility range.

Paragraph B-6 in Appendix B gives a detailed description of how all four tables work together.

2.2.3.2 Component Tree Table. This screen allows you to define a component tree table.

```

#####
Component Tree Table                                11/14/88
#####
Command Mode
(1) Tree ID      [BF]
(2) Description [ALL BUILDING FACILITIES]
#####
F1 Top F2 Bot F3 Find F4 List F5 Edit F6 F7 Add F8 Del F9 F10Exit

```

Figure 2-16. Component Tree Table

2.2.3.3 Basic Task Table. The first screen allows you to define a basic task table and select the correct table to be edited. Each task table is related to one component tree table and this tree ID must be entered as the first data item.

```

#####
Basic Task Table                                11/14/88
#####
Command Mode
(1) Tree ID      [bf]
(2) Group ID     [a5]
(3) Description [buildings other than housing ]
#####
F1 Top F2 Bot F3 Find F4 List F5 Edit F6Select F7 Add F8 Del F9 F10Exit

```

Figure 2-17. Basic Task Table

When the F6 SELECT key has been entered, the second screen allows you to enter data related to a specific task. Basic tasks are directly related to a component tree table. Therefore, additions or deletions of tasks that change the component tree will be performed automatically.

When a new task is entered that requires additions to the component tree, the system will ask you to define the component descriptions before you will be asked for task-related information.


```

#####
Basic Task Information File Editor          11/14/88
#####
LEVEL 1 0000000 TOTAL SUMMARIES
LEVEL 2 0300000 ROOFING
LEVEL 3 0310000 ROOFING
LEVEL 4 0311000 ROOF COVERING
LEVEL 5 0311100 BUILT-UP ROOFING

Command Mode

(1) Task Id ... [0311101] Record Count: 1878
(2) Task Desc.. [DEBRIS REMOVAL BY HAND & VISUAL INSPECT.]
(3) Unit of Measure Index.. [ 2] (square feet) )
(4) Trade Index..... [17] (Roofing) )
(5) Task Classification... [ 0] (Description Not Found) )
(6) High Task Frequency... [ .40] in years
(7) Average Task Frequency [ .50] in years
(8) Low Task Frequency.... [ .60] in years
(9) Labor Requirements.... [ .001404] Labor Hours
(10) Material Requirements. [ .000000] Cost
(11) Equipment Requirements [ .001404] Equipment Hours
(12) Equipment Id..... [ ] (No description) )

F1 Top F2 Bot F3 Find F4 List F5 Edit F6 F7 Add F8 Del F9 F10Exit

```

Figure 2-18. Basic Task Information File Editor

Several data items in the task are pointers or indexes to other tables that contain common information used by many tasks. The following tables allow you to include common information quickly for reference in the task description.

2.2.3.3.1 Units of Measure. This screen contains a phrase defining each unit of measure used to report component quantities and the ID used in the basic task table.

```

#####
Unit of Measure List Editor
#####
ID UNIT OF MEASURE
1 count
2 square feet
3 linear feet
4 1000 linear feet
5 per circuit
6 acre
7
8
9
10
11
12
13
14
15
16
17
#####
F1 F2 F3 F4 LIST F5 EDIT F6 F7 F8 F9 F10EXIT

```

Figure 2-19. Unit of Measure List Editor

2.2.3.3.2 Trade and Costs Data. This screen describes each trade or shop and the basic shop effective labor and equipment rates for the Directorate of Engineering and Housing (DEH). The contractor labor and equipment rates are also given.

```

=====
      TRADE AND COSTS DATA
=====
      TRADE INDEX      : 01
      DESCRIPTION      : Carpentry
      SHOP CODE        : S1
      INHOUSE LABOR    : 16.35   CONTRACT LABOR : 19.62
      INHOUSE EQUIPMENT : 3.20   CONTRACT EQUIPMENT : 4.80
=====
F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6      F7 ADD F8 DEL F9      F10EXIT

```

Figure 2-20. Trade and Costs Data

2.2.3.3.3 Task Classification. Tasks can be classified as either high-cost or not high-cost. This screen allows you to identify tasks.

```

=====
Task Classification Editor
=====
ID      DESCRIPTION
1      major cost tasks
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
=====
F1      F2      F3      F4 LIST F5 EDIT F6      F7      F8      F9      F10EXIT

```

Figure 2-21. Task Classification Editor

Currently, high-cost tasks are identified with a "1." All other tasks are left blank.

2.2.3.3.4 Special-Purpose Equipment and Costs. This screen allows you to describe and enter the cost per hour for special-purpose equipment that may be required to perform a task. This equipment rate will be used in place of the standard shop equipment truck rate for the shop. The equipment ID is entered in the basic task description and replaces the basic trade equipment rates listed in the trade and costs table.

```

=====
Equipment Costs
=====
command mode
Equipment Code .....[01]
Equipment Description .[100 Ton Crane]
Equipment Cost .....[ 44.44] Cost/Hour
=====
F1 TOP  F2 BOT  F3 FIND F4 LIST F5 EDIT F6      F7 ADD  F8 DEL  F9      F10EXIT

```

Figure 2-22. Equipment Costs

2.2.3.3.5 Work Performance Methods. For each basic task table, such as housing, you can define up to six management methods. For example: the first work management method could represent family

```

=====
BASIC TASK FILE SELECTION
=====
TREE ID      GROUP ID      DESCRIPTION
bf           a5           buildings other than housing
BF           B5           ALL BUILDINGS - ZONE 5

USE      TO IDENTIFY THE TABLE TO BE SELECTED - THEN HIT F6
=====
F1 TOP  F2      F3      F4      F5      F6SELECTF7      F8      F9      F10EXIT

```

The first screen displays the basic task tables currently defined in the system. You can select the appropriate basic task table to be edited and choose three different editing operations:

```

=====
Work Performance Main Selection Menu

1 - Define Methods
2 - Define all work types
3 - Define individual tasks
0 - Return to previous menu

Selection      0
=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

2-33

(1) Define Work Management Methods.

```

=====
Work Performance Method - Define Methods

Method 1 :minor-inhouse,major-contract
Method 2 :all tasks by contract
Method 3 :Barracks:troop,inhouse,contract
Method 4 :Family Housing:selfhelp,IN,CNT
Method 5 :
Method 6 :

=====
F1      F2      F3      F4      F5 EDIT F6BLANK F7      F8      F9 SAVE F10EXIT

```

Figure 2-25. Work Performance Method--Define Methods

This screen allows you to define up to six different work management methods (family housing, training) for each basic task table.

(2) Define All Work Types. There are four possible labor types for performing each task:

1. In-house work force (I)
2. Contract work force (C)
3. Self-help program (S)
4. Troop work force (T).

A "no change" means that the computer will not change the current definition for any task.

You must define how each task will be performed within each work management method. Usually, one of the labor types would be used for all or most of the tasks.

```

Reset All Work Performance Method Indexes

Method 1 : minor-inhouse,major-contract  T TROOP
Method 2 : all tasks by contract          I INHOUSE
Method 3 : Barracks:troop,inhouse,contract C CONTRACT
Method 4 : Family Housing:selfhelp,IH,CNT S SELF HELP
Method 5 :                               * no change
Method 6 :                               * no change

Hit space to Toggle - to move
SAVE (F9) will perform all changes to tasks
F1 F2 F3 F4 F5 F6 F7 F8 F9 SAVE F10EXIT
```

Figure 2-26. Reset All Work Performance Method Indexes

This screen allows you to set all tasks within each of one to all six work management methods to one labor type (Troop, Contractor, In-house, Self-help, or unchanged) by using a selection table displayed on the screen. Once the selection table is set correctly, you can request that MRPM update the basic task data base.

(3) Define Individual Tasks.

```

Task Work Performance Methods - Entry & Editing 11/14/88
Change Mode
Task Number..... 1131412
Task Description ... REPLACE LAMP

(1) minor-inhouse,major-contrac = [I] Inhouse
(2) all tasks by contract       = [C] Contract
(3) Barracks:troop,inhouse,cont = [T] Troop
(4) Family Housing:selfhelp,IH, = [S] Self Help
(5)                             = [I] Inhouse
(6)                             = [I] Inhouse

F1 F2 F3 F4 F5 F6 F7 F8 F9 SAVE F10EXIT
```

Figure 2-27. Task Work Performance Methods--Entry and Editing

This screen allows you to edit one task at a time and set the six work management labor types for each individual task.

2.2.3.4 Total/Partial Summary Tasks. Each summary table is related to one component tree table and this tree ID must be entered as the first data item. MRPM allows you to model facilities with less detail than the task level. Facilities on 10 installations were modeled in detail at the task level. The resulting labor hours, material dollars, and equipment hour resources were averaged to obtain the average resource requirements for a typical Army facility. This Army average summary data was calculated for the total facility and for every system, subsystem, and component of the facility. The results are stored in the total summary tables. The partial task summary tables contain the combined resource requirements for all low-cost tasks at the component level.

```

#####
Total/Partial Summary Tasks                                11/14/88
#####
Command Mode
(1) Tree ID      [bf]
(2) Group ID     [st]
(3) Description  [Total Summary for Admin. Facly]
#####
F1 Top F2 Bot F3 Find F4 List F5 Edit F6 Select F7 Add F8 Del F9 F10 Exit
#####
```

Figure 2-28. Total/Partial Summary Tasks

The first screen allows you to define and SELECT any summary task table for editing.

```

MODE: COMMAND          BASIC TASK SUMMARY EDITOR

Component Id:          [0000000]
Component Description:  [Total Resources for Facility ]
Trade Index:           [ 2]          Unit of Measure Id: [ 2]
Classification Indicator: [ 0]
Work Performance Method 1: [1]
Work Performance Method 2: [1]
Work Performance Method 3: [1]
Work Performance Method 4: [1]
Work Performance Method 5: [1]
Work Performance Method 6: [1]
Number of Years:       [80]

YEAR  LABOR HOURS  MATERIAL COST  EQUIPMENT HOURS
1 [ .001731] [ .001709] [ .001731]
2 [ .014464] [ .046092] [ .014434]
3 [ .015455] [ .047981] [ .015425]
4 [ .022551] [ .054326] [ .022521]
5 [ .015993] [ .053188] [ .015963]
6 [ .017731] [ .073236] [ .017701]
7 [ .036468] [ .142301] [ .036438]
8 [ .016115] [ .054567] [ .016084]
9 [ .040663] [ .628187] [ .040632]
10 [ .024941] [ .191339] [ .024911]

F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 F7 ADD F8 DEL F9 F10EXIT
```

Figure 2-29. Basic Task Summary Editor

The second screen allows you to edit the individual task summaries. You can define labor, material, and equipment resources for any time period from 1 to 80 years in duration.

2.2.3.5 F4C Description Editor.

```

*****
F4C DESCRIPTION EDITOR
*****

*****
F4C CODE: 111000
DESCRIPTION: AIRFIELD PAVEMENTS- RUNWAYS
*****

F1 TOP  F2 BOT  F3 FIND  F4 LIST  F5 EDIT  F6      F7      F8      F9      F10EXIT

```

Figure 2-30. F4C Description Editor

This screen allows you to change the descriptions for each F4C code.

2.2.3.6 Facility Consistency Check.

```

*****
FACILITY CONSISTENCY CHECK
*****

1) THIS PROGRAM WILL CHECK THE FACILITY FILES
   AND RELATED FILES.
2) PLEASE TURN ON PRINTER.
3) PLEASE ENTER DIRECTORY NAME
   : \DATA\LEARN

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-31. Facility Consistency Check.

This function allows you to check to ensure that you have a complete data base. The system will go through your General Facility Information table and check to make sure all facilities are in the proper directory.

2.2.4 Reference Data for Individual Facilities.

```

*****
      Data For Individual Facilities
      Selection Menu
*****

Area Identification

Subinstallation Identification

Travel Zones

Special Condition Multiplier

Financial Management

Facility Funding Profile


Updated 24 June 1988
*****
F1    F2    F3    F4    F5    F6    F7    F8    F9    F10EXIT

```

Figure 2-32. Reference Data for Facilities Selection Menu

2.2.4.1 Subinstallation and Area Identification.

```

=====
      SUBINSTALLATION DESCRIPTIONS
=====

      SUBINSTALLATION ID 01
      DESCRIPTION North Sector

=====
=====
F1 TOP  F2 BOT  F3 FIND F4 LIST F5 EDIT F6      F7 ADD  F8 DEL  F9      F10EXIT

```

Figure 2-33. Subinstallation Descriptions

Table 2-3. Travel Zones and Times

<u>Travel Zone</u>	<u>Time-Round Trip Shop to/from Facility (hrs)</u>	<u>Trips per Day</u>	<u>Multiplication Factor</u>
1	.16	2	1.04
2	.25	2	1.07
3	.35	2	1.10
4	.45	2	1.13
5	.55	2	1.16
6	.65	2	1.19
7	.75	2	1.23
8	.85	2	1.27
9	1.00	2	1.33
10	1.20	2	1.43
11	1.40	1	1.21
12	1.60	1	1.25
13	1.80	1	1.29
14	2.00	1	1.33
15	2.20	1	1.38
16	2.40	1	1.43
17	2.60	1	1.48
18	2.80	1	1.54
19	3.00	1	1.60
20	3.20	1	1.67

```

*****
          TRAVEL ZONE TABLE
*****

*****
F1 *****E
TRAVEL ZONE : 1
TRAVEL TIME : 1.04
*****
*****

*****
F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6      F7      F8      F9      F10EXIT
```

Figure 2-35. Travel Time Data

2.2.4.3 Special Condition Multipliers. The average resources given in the basic task tables and the summary task tables are based on normal occupant treatment of facilities, a standard level of maintenance,

and mid-United States climatic conditions. These conditions should be adjusted to consider the actual effects of the occupant, weather, maintenance practices, and other factors.

```

*****
SPECIAL CONDITION MULTIPLIER DEFINITIONS
*****

*****
SCM ID: 01
DESCRIPTION:
Normal Conditions
*****

PAGE DOWN: Next Page  PAGE UP: Previous Page
*****
F1 TOP  F2 BOT  F3 FIND  F4 LIST  F5 EDIT  F6 SELECT  F7 ADD  F8 DEL  F9      F10 EXIT

```

Figure 2-36. Special Condition Multiplier Definitions

The first screen allows you to define a group of special conditions (e.g., initial construction, current maintenance practices, weather, and occupant conditions), on your installation. Above-average construction, average maintenance practices, weather-location (hilltops, valleys), and occupant (task unit, training unit, permanent unit) can be selected. You can select one group for editing. The next set of four screens presents questions describing the actual conditions for this set. Climatic zones are shown in Table 2-1.

```

*****
SPECIAL CONDITION MULTIPLIERS (Page 1 of 4)
*****
Enter Installation Zone.....[05]

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 2-37. Special Condition Multiplier, Page 1

```

*****
SPECIAL CONDITION MULTIPLIERS (Page 1 of 4)
*****
Enter Installation Zone.....[ 5]
Zone Related Multipliers For Zone 05

Extreme Cold.....[1.00]
Freeze-Thaw.....[1.00]

High Intermittent Winds.....[No ]
Yes (1.01) No (1.00)

Significant Hail Damage.....[No ]
Yes (1.01) No (1.00)

Sand Storms.....Mild 1 (Once or more/50 years)
                        Severe Moderate Mild
Once or more/year      1.10 1.06 1.03
Once or more/decade    1.07 1.05 1.02
Once or more/25 years  1.05 1.03 1.01
Once or more/50 years  1.03 1.01 1.00

PAGE UP for previous page PAGE DOWN for next page
ARROW KEYS to move ENTER to answer

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 2-38. Special Condition Multiplier, Page 2

```

=====
SPECIAL CONDITION MULTIPLIERS (Page 2 of 4)
=====
Maintenance Program.....[Average ]
    Superior (0.93)
    Above Average (0.96)
    Average (1.00)
    Below Average (1.04)
    Inadequate (1.07)

Original Workmanship.....[Average ]
    Excellent (0.90)
    Above Average (0.95)
    Average (1.00)
    Below Average (1.05)
    Poor (1.10)

Is installation on Pacific Northwest Coast
or Pensacola, Fla. (Precip > 60 in/year)? .....[No ]
    Yes No

PAGE UP for previous page PAGE DOWN for next page
ARROW KEYS to move ENTER to answer
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

```

Figure 2-39. Special Condition Multiplier, Page 3

```

=====
SPECIAL CONDITION MULTIPLIERS (Page 3 of 4)
=====
Is installation located in an arid climate?
(Precipitation < 10 inch/year).....[No ]
    Yes (1.01) No (1.00)

Occupant Effects.....***Choose One From Each Row***

    Excessive Moderate Modest Not Applicable
Hard use 1.06 1.03 1.01 1.00..[Not Applicable]
Abuse 1.08 1.05 1.02 1.00..[Not Applicable]
Vandalism 1.10 1.07 1.03 1.00..[Not Applicable]

Special Exterior Wall Multiplier....[Normal ]
    Normal (1.00)
    IFS Component Calculations (1.05)

PAGE UP for previous page PAGE DOWN for next page
ARROW KEYS to move ENTER to answer
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

```

Figure 2-40. Special Condition Multiplier, Page 4

```

*****
SPECIAL CONDITION MULTIPLIERS (Page 4 of 4)
SUMMARY
*****
Extreme Cold.....[1.00]
Freeze-Thaw Factor.....[1.00]
High Precipitation (concrete).....[1.00] (No )
High Precipitation (wood).....[1.00] (No )
Extreme Aridity.....[1.00] ( )
High Intermittent Winds.....[1.00] ( )
Hail Damage.....[1.00] ( )
Sand Storms.....[1.00] ( )
Maintenance Programs.....[1.00] ( )
Original Workmanship.....[1.00] ( )
Occupant Effects.....[1.00]
Hard Use....[1.00] ( )
Abuse.....[1.00] ( )
Vandalism...[1.00] ( )
Special Exterior Wall Multiplier...[1.00] ( )
*****
F1 F2 F3 F4 F5 EDIT F6 F7 F8 F9 SAVE F10EXIT

```

Figure 2-41. Special Condition Multiplier, Page 5

```

*****
SPECIAL CONDITION MULTIPLIERS (Page 4 of 4)
SUMMARY
*****
CACES NO. MULTIPLIER CACES NO. MULTIPLIER
0000000 1.00 0415F00 1.00
0300000 1.00 0415G00 1.00
0400000 1.00 0415H00 1.00
0410000 1.00 0420000 1.00
0415400 1.00 0430000 1.00
0415500 1.00 0500000 1.00
0415800 1.00 0530000 1.00
0415900 1.00 0540000 1.00
0415A00 1.00 0600000 1.00
0415E00 1.00
*****
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

```

Figure 2-42. Special Condition Multiplier, Summary

2.2.4.4 Financial Management. This screen allows you to select one of four tables for editing:

```

*****
Financial Management
Selection Menu
*****

APPROPRIATION CODE TABLE
AMS FUNCTIONAL GROUP CODES
F4C TO AMS CONVERSION TABLE
STANDARD REPORT TABLE

Updated 1 September 87
*****

```

Figure 2-43. Financial Management Menu

2.2.4.4.1 Appropriations Code Table.

```

Command mode      APPROPRIATIONS CODE TABLE
*****
APR ID* APR CODE #      APR DESCRIPTION
*****
01  RPMA 1      Real Property Maintenance Account-1
02  RPMA 2      Real Property maintenance Account-2
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
*****

F1 TOP  F2 BOT  F3      F4      F5 EDIT F6      F7 ADD  F8 DEL  F9      F10EXIT

```

Figure 2-44. Appropriations Code Table

This table contains an appropriation ID (which is used in the MRPM facility funding profile), an appropriation number, and a description for reference.

2.2.4.4.2 AMS Functional Group Codes.

Command mode		AMS FUNCTIONAL GROUP CODES	
AMS ID	AMS CODE #	AMS DESCRIPTION	
01	K0000	MAINTENANCE OF REAL PROPERTY	
02	K1000	UTILITIES SYSTEMS	
03	K1100	WATER SYSTEMS	
04	K1110	TREATMENT AND FILTRATION	
05	K1111	PLANTS	
06	K1112	SOURCE	
07	K1120	WELLS	
08	K1130	DISTRIBUTION SYSTEMS	
09	K1131	MAINS AND LATERALS	
10	K1132	PUMPING STATIONS	
11	K1133	STORAGE	
12	K1200	SEWER SYSTEMS	
13	K1210	TREATMENT PLANTS	
14	K1211	PRIMARY PLANT	
15	K1212	SECONDARY PLANT	

F1 TOP F2 BOT F3 F4 F5 EDIT F6 F7 ADD F8 DEL F9 F10EXIT

Figure 2-45. AMS Functional Group Codes

This table contains an AMS ID (which is used in the MRPM facility funding profile), an AMS number, and a description for reference.

2.2.4.4.3 F4C to AMS Conversion Table.

F4C TO AMS CONVERSION TABLE			
F4C CODE	AMS NUMBER	F4C CODE	AMS NUMBER
1110000	K5210	1132100	K5220
1111000	K5210	1133000	K5210
1111100	K5220	1133100	K5210
1112000	K5210	1133200	K5210
1112100	K5220	1133300	K5220
1113000	K5210	1133400	K5220
1113100	K5220	1133500	K5220
1114000	K5210	1134000	K5210
1114100	K5220	1134100	K5220
1121000	K5210	1135000	K5210
1121100	K5220	1135100	K5220
1122000	K5210	1136000	K5210
1131000	K5210	1136100	K5220
1131100	K5220	1137000	K5210
1132000	K5210	1137100	K5220

F1 TOP F2 BOT F3 FIND F4 F5 EDIT F6 F7 ADD F8 DEL F9 F10EXIT

Figure 2-46. F4C to AMS Conversion Table

This table lists every F4C code and the appropriate AMS code.

2.2.4.4.4 Standard Report Table.

```

Command mode
STANDARD REPORT TABLE
*****
APR ID* APR CODE # AMS ID* AMS CODE #
*****
01 . RPMA 1 69 . K2600
01 . RPMA 1 70 . K2700
01 . RPMA 1 71 . K2800
01 . RPMA 1 72 . K2910
.
.
.
.
.
.
.
.
.
.
*****
*****
F1 TOP F2 BOT F3 F4 F5 F6 F7 ADD F8 DEL F9 F10EXIT

```

Figure 2-47. Standard Appropriations/AMS Report Formats

This table contains the complete list of all standard reports that must be sent for review and approval.

2.2.4.5 Facility Funding Profile. A facility, such as a building, is often shared by several different organizations and maintenance must be divided among several appropriations.

```

*****
Command Mode

FACILITY FUNDING PROFILE ID# = 01

PROFILE DESCRIPTION [Test]

LABOR & MATERIALS APPROPRIATION BREAKDOWN
APR ID = [01] Real Property Maintenance Account-1 PERCENT = [100]

EQUIPMENT APPROPRIATIONS BREAKDOWN
APR ID = [01] Real Property Maintenance Account-1 PERCENT = [100]

*****
F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 F7 ADD F8 DEL F9 F10EXIT

```

Figure 2-48. Facility Funding Profile

There are two ways to model the facility:

- (1) **Total facility model** - The facility is modeled as built and the correct funding percentages are listed in the table.

(2) Subfacility modeling - The facility is divided subjectively into a part for each using organization and all costs for the subfacility are charged to the using organization.

This screen allows you to define the appropriation IDs from the appropriations table and the percentages to ensure a correct prediction by appropriation. Costs can be divided among different appropriations in two ways:

- (1) Labor and materials
- (2) Equipment - may not be charged directly to a project account but may be in a special account.

2.3 Facility Information.

2.3.1 Facility Information Selection Menu. This menu allows you to perform all activities related directly to an individual facility or group of facilities. The following functions are available:

```

*****
|               Facility Information               |
|               Selection Menu                   |
|*****|
|
|               Resource Calculation              |
|               Display Resources                |
|               Facility Component Quantity       |
|               General Information              |
|               Facility Reports                 |
|               Query                            |
|               Model Facility                   |
|               Copy Facility                    |
|               Global Change to Components      |
|               Fac Group to Dwelling Unit       |
|               Delete Resource Files             |
|               Move Facility to New Directory   |
|               Delete Resource Total File       |
|
|               Updated 12 Sep. 1988             |
|*****|
| F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT |

```

Figure 2-49. Facility Information Selection Menu

1. Resource Calculation. This selection allows you to perform a resource prediction for individual facilities by specifying: (1) the facility ID for one facility, (2) the range of facility IDs to be calculated as individual facilities, and (3) the range of F4C codes to be calculated as individual facilities. One resource prediction will be calculated for each facility within the range specified.

2. Display Resources. This selection allows you to view resource prediction values on the screen in both tabular and graphic format.

3. Facility Component Quantity (and Dates). This selection allows you to record changes in the component quantities, the date that each task was last completed, and the date that the task will be scheduled in the future.

4. General Information. This selection allows you to enter the basic information describing each facility.

5. Facility Reports. This selection allows you to obtain several different reports on your printer.

6. Query (Questions and Answers). This selection allows you to ask questions using data in the data base.

7. Model a Facility. This selection allows you to prepare a model of the components within a facility.

8. Copy a Facility. This selection allows you to copy an existing facility to form a new facility under a new ID.

9. Global Change to Components. This selection allows you to change one component to another component (i.e., wood siding to steel siding).

10. Facility Group to Dwelling Unit. This selection allows you to divide a group of facilities into separate facilities, and a single facility into dwelling units such as apartments.

11. Delete Resource Files. This selection allows you to remove all resource summary files from a directory.

12. Move to New Directory. This selection allows you to move facilities from one directory to another.

13. Delete Resource Total File. This selection allows you to delete all of the calculations you have stored in the total summary table.

2.3.2 Resource Calculation Menu. This screen allows you to perform resource prediction calculations for individual facilities.

```

Resource Calculation
11-14-88 Revision 06.53 11:36:14
Installation: Funding Reporting System Demo
Report Period Years: 1986 - 1995
M.L.A.=1.000 M.T.A.=1.000 RMF T.A.=1.000 C.A.=1.000
Set Run Parameters
Set Ranges
Not Used
Accept Values & Start Run
MODELING METHOD [1]Components
CALCULATION METHOD [3]All Tasks
TASK DISTRIBUTION METHOD [1]On the Average
FACILITY SELECTION [1]All Facilities
SUBDIRECTORY USAGE [1]Use main directory; No Tape; Save Files
FAC. TYPE TO BE PROCESSED [1]Building and Non-Building
Trace Option [1]Set Trace Off
Facility:00000000-ZZZZZZZZ
Use keys to position to selection & hit ENTER | hit F10 to exit program
```

Figure 2-50. Resource Calculation

The screen is divided into four parts:

1. TOP BOX. The top portion of the screen displays the current date, time, and MRPM program revision number (e.g., 6.40). The rest of the information in the top portion is defined in the reports period menu (basic information, general information, report period) and is displayed to refresh your memory. This information includes the name of the installation, the beginning and ending report period years, a material location adjustment factor, a material time adjustment (or cost escalation) factor, and an RMF time adjustment (or cost escalation) factor. If this information is not correct, go to the report periods menu and correct it.

2. MIDDLE BOX. The middle portion of the screen contains a list of instructions that can be executed. Use the arrow keys to highlight the correct instruction and press the enter key to make this selection.

a. Set Run Parameters. When this instruction is selected, the system moves to the bottom box and allows you to set the first five rows of information. Use the space bar to see the various options available for each row and select the correct option for your application. Use your arrow keys to move up and down the rows. Use the F10 key to return to the middle portion of the menu.

b. Set Ranges. You can select a group of facilities for calculations by any one of the five methods shown in the FACILITY SELECTION row in the bottom portion of the screen. You can also limit your calculations to the facilities located in a sequential group of directories. This Set Ranges command allows you to define the range and directories to be used during calculation. Control is passed to the last line of the bottom box. When all valid information has been entered, the F10 key returns you to the middle portion of the screen.

c. Set Funding Report Parameters. (NOT IMPLEMENTED) - This command allows you to generate one funding report for each subdirectory. The funding report file will be generated as soon as all facilities in the subdirectory have had calculations performed.

```

*****
REPORT INFORMATION
*****

```

```

*****
1 - REPORTS FROM STANDARD APR/AMS COMBINATIONS
2 - REPORTS FROM SPECIFIC APR/AMS COMBINATIONS
CHOOSE 1 or 2 :
*****

```

HIT F10 KEY TO EXIT

Figure 2-51. Report Information

When the standard report command is selected, a new screen is displayed. The Army has several standard Appropriation/AMS code reports. One of the standard reports can be selected from the following screen:

AMS FUNCTIONAL GROUP CODES		
AMS ID#	AMS CODE #	AMS DESCRIPTION
01	K2100	TRAINING
02	K2200	MAINTENANCE AND PRODUCTION
03	K2300	RESEARCH, DEVELOPMENT AND TEST
04	K2410	AMMUNITION AND STORAGE
05	K2420	OTHER COVERED STORAGE
06	K2500	HOSPITAL AND MEDICAL
07	K2600	ADMINISTRATION
08	K2700	BACHELOR HOUSING
09	K2800	COMMUNITY
10	K2910	FAMILY HOUSING
11	K2920	OPERATIONAL BUILDINGS
12	K2930	UTILITY PLANT BUILDINGS
13	K2990	OTHER BUILDINGS
14	K1211	PRIMARY PLANTS
15	K1212	SECONDARY PLANTS

USE CURSOR AND PAGE CONTROL TO PICK NUMBER DESIRED
 HIT ENTER KEY TO MAKE SELECTION
 HIT F10 KEY TO EXIT

Figure 2-54. AMS Functional Group Codes

d. Accept Values and Start Run. This command allows you to start the calculation process based on the information already selected. The system will move from subdirectory to subdirectory, performing calculations as specified. Old resource summary tables will be deleted and replaced with the newly calculated results.

IF YOU ARE USING THE BASE FACILITY CONCEPT, YOU MUST RECALCULATE THE BASE FACILITIES BEFORE PERFORMING OTHER CALCULATIONS. BASE FACILITIES CAN BE CALCULATED BY USING THE F4C RANGE [3] FACILITY SELECTION OF 0000000-0000000.

The screen will display the facility ID for each facility as the calculations are being performed. A dated and timed list of facilities processed and problems encountered will be printed as a permanent record of the calculation.

Calculations proceed as follows:

- (1) The system moves from one subdirectory to the next, processing all facilities within a subdirectory.
- (2) Within each subdirectory:
 - (a) The system finds the next facility to be processed.
 - (b) The system deletes the old resource summary file.
 - (c) The system performs the calculation of the new resource summary file.
 - (d) When all facilities have been processed, the system will generate a funding report if requested.
 - (e) The system will then back up the resource summary files to tape if requested.

- (f) The system will save or delete the resource summary files as directed.

The calculation times vary, depending on the type of computer system. Times given below are based on the standard MRPM hardware. Calculation times also vary for each MODELING METHOD:

- (1) As entered - one facility per minute.
- (2) Gross floor area only - eight facilities per minute.
- (3) RMF - 12 facilities per minute.

3. BOTTOM BOX. The bottom portion of the screen shows the calculation request information.

a. Modeling Method. You can select one of five different modeling methods by pressing the space bar:

(1) Components. Before performing calculations, you have defined the components that comprise each facility through the model facility menu. With this modeling method, three different levels of calculations can be performed as defined in the next section. You must define a CALCULATION METHOD and a TASK DISTRIBUTION METHOD if calculation method "all tasks" is entered.

(2) Unit Cost by Age. The system will use the gross floor area listed in row 8 of the general facility information table and apply the annual recurring maintenance (ARM) factor and the major cost task and replacement task (MRT) factor. THE CALCULATION METHOD and TASK DISTRIBUTION METHOD are not required.

(3) Gross Floor Area Only. The system will use the gross floor area listed in row 8 of the general facility information table and apply the average Army summary resource requirements with your labor, material, and equipment rates. THE CALCULATION METHOD and TASK DISTRIBUTION METHOD are not required.

The system will take the year of construction (i.e., 1942) and the report period dates (e.g., 1986 through 1995) and convert the report years to facility ages (1986: Age = 44; 1995: Age X = 53). The system will go to the correct total resource summary table and read the labor hours (LH), material cost (MC), and equipment hours (EH) resource requirements per unit of measure for the required ages (e.g., Age = 44, LH = 0.069 hrs/sq ft, MC = \$0.76/sq ft, EH = 0.037 hrs/sq ft). The system will go to the Trade Cost Table and read the carpentry shop rates for labor and equipment (L = \$10/hr, E = \$2/hr). Total resource requirements will be produced by multiplying the facility gross square feet of floor area (e.g., 2000 sq ft) by the average resource requirement (e.g., 0.069 hr/sq ft) or 138 hr. Dollar costs are produced by multiplying total resources (e.g., 138 hr) by the labor rate (e.g., \$10/hr) or \$1380.

(4) Recurring Maintenance Factors (RMF). The system will use the gross floor area listed in the general facility information table and apply the recurring maintenance factors for the installation (the average of the last several year's expenditures). THE CALCULATION METHOD and TASK DISTRIBUTION METHOD are not required.

The system will take the year of construction (e.g., 1942) and the report period dates (e.g., 1986 through 1995) and convert the report years to facility ages (1986: Age = 44; 1995: Age = 53). The system will go to the RMF table and read the total cost per unit of measure for the required ages (e.g.,

Age = 44, total cost = \$0.76/sq ft). Total dollar costs are produced by multiplying total resources per unit of measure (e.g., \$0.76/sq ft) by the gross square feet of floor area (e.g., 2000 sq ft) or \$1520.

(5) Method Specified in the Facility Information Table. For each facility or facility group, the system will use the modeling method that you have specified in the basic facility information table, item number 16. The CALCULATION METHOD and TASK DISTRIBUTION METHOD are required.

(6) Only Facilities Using RMF. This option will calculate only the facilities that have RMF marketed in the calculation modeling ID in the General Facility information.

(7) F4C Summary Date. This option will calculate only the facilities that have their unit of measure reported in the technical data report.

(8) Summary and Components. This option uses only the information stored in the general facility information table. The system uses the square footage of floor area and the total unit resources summary table to produce resources for the total facility and all systems. This option can be used to calculate labor and equipment resources for individual maintenance shops since facility systems are usually maintained by one shop.

b. Calculation Method. (Not required when Modeling Method is RMF or gross floor area only.) When using a component modeling method, you can select one of four different calculation methods by pressing the space bar:

(1) Major Cost Tasks and Partial Component Summaries. All tasks have been classified as either high-cost or low-cost. MRPM will calculate all high- or major cost tasks individually. All low-cost tasks have already been combined into one partial component summary.

(2) Component Summaries, No Tasks. (NO DATA AVAILABLE) The system will not use individual tasks. All tasks have already been combined into one total component summary resource requirement.

(3) All Tasks. MRPM will use all tasks for each component.

(4) Just Major Tasks. System will calculate only high-cost and replacement tasks.

c. Task Distribution Method. (Required only when CALCULATION METHOD is All Tasks.) Two task distribution methods can be selected by pressing the space bar:

(1) On the Average. All task occurrences will be assumed to occur on the average frequency stated in the Basic Task Table for each task.

(2) Uniform. Task occurrences will be assumed to occur uniformly from the first possible occurrence (high frequency) to the last possible occurrence (low frequency) stated in the Basic Task Table for each task.

d. Facility Selection. You can select one of five facility processing methods by pressing the space bar. The starting and ending points for the range are set on the last row of the bottom box. A subdirectory range can be specified for any option to reduce processing time.

(1) Facility Number Range. You can specify a range of facility numbers to be calculated. The system will calculate one resource summary file for each facility from the first specified through, and including, the last facility number specified.

(2) F4C Range. You can specify a range for calculation. The system will calculate one prediction for each facility that has an F4C number within the range specified.

(3) All Facilities. With one command, you can specify calculation of all facilities for your installation.

(4) Subinstallation Range. You can specify a range of subinstallation IDs.

(5) Area Range. You can specify a range of area IDs.

e. Subdirectory Usage. You may have placed your facilities into several different directories to keep the system efficient (250 to 350 facilities per directory). For most installations, your computer cannot store all of the resource summary data at once. At times, you will or will not want to create a tape backup of the resource summary files. Also, you will or will not want to save the files in your computer. The following five options are available:

(1) Use Main Directory; No Tape Backup; Save Files. Use this option when all of your facilities are stored in the installation directory. The system will perform calculations in the current directory. Totals (CACES No: 0000000) for each facility will be stored in the installation directory. The resource summary files will be saved in the main directory. No tape backups will be made of the resource summary files.

(2) Use Main Directory; No Tape Backup; Delete Files. Use this option when all of your facilities are stored in the installation directory. The system will perform calculations in the current directory. Totals for each facility will be stored in the installation directory. The resource summary files will be deleted. No tape backup will be made of the resource summary file.

(3) Use Subdirectories; No Tape Backup; Delete Files. The subdirectories specified will be used. The totals (CACES No: 0000000) for each facility will be stored in the installation directory. No tape backup will be made of the resource summary files and they will be deleted from the computer to allow room for the next subdirectory calculations to continue.

(4) Use Subdirectories; Tape Backup; Delete Files. The subdirectories specified will be used. The totals (CACES No: 0000000) for each facility will be stored in the installation directory. The system will do a tape backup, then delete the resource summary files.

(5) Use Subdirectories; No Tape Backup; Save Files. The subdirectories specified will be used. The totals (CACES No: 0000000) for each facility will be stored in the installation directory. No tape backup will be made and the resource summary files will be saved in the subdirectory.

2.3.3.1 Display Facility Resources.



Figure 2-56. Resource Summary Graph

After the Facility ID is entered, the following screen will appear:

Resource Summary File Query Program
CACES NO: 0000000 TOTAL SUBMARIES
FACILITY ID: P12345ABC Total ten years cost: 57712

	Year	1986	1987	1988	1989	1990
1	Occ Count	139	142	186	128	141
2	Lab Hours	101	102	366	97	204
3	Exp Hours	101	102	366	97	204
4	Lab Costs	1618	1624	6108	1550	3648
5	Mat Costs	814	209	6916	210	1792
6	Exp Costs	326	329	1252	310	826
7	Tot Costs	2759	2163	14277	2072	6267

	Year	1991	1992	1993	1994	1995
1	Occ Count	168	253	127	194	131
2	Lab Hours	144	207	98	230	106
3	Eqp Hours	144	207	98	230	106
4	Lab Costs	2502	3390	1567	3898	1699
5	Mat Costs	201	12246	664	318	1004
6	Eqp Costs	543	663	314	819	341
7	Tot Costs	3247	16300	2546	5036	3045

F1=TOP F2=BOT F3=FIND PgUp=PREV PgDn=NEXT G=GRAPH F10=EXIT

Figure 2-57. Resource Summary File, Page 1

After selecting the graph option from the function keys, the following screen will appear:

		Resource Summary File			Query Program	
CACES NO: 0000000		TOTAL SUMMARIES				
FACILITY ID: P12345ABC		Total ten years cost:			57712	
	Year	1986	1987	1988	1989	1990
1	Occ Count	139	142	186	128	141
2	Lab Hours	101	102	366	97	204
3	Eqp Hours	101	102	366	97	204
4	Lab Costs	1618	1624	6108	1550	3648
5	Mat Costs	814	209	6916	210	1792
6	Eqp Costs	326	329	1252	310	826
7	Tot Costs	2759	2163	14277	2072	6267

	Year	1991	1992	1993	1994	1995
1	Occ Count	168	253	127	194	131
2	Lab Hours	144	207	98	230	106
3	Eqp Hours	144	207	98	230	106
4	Lab Costs	2502	3390	1567	3898	1699
5	Mat Costs	201	12246	664	318	1004
6	Eqp Costs	543	663	314	819	341
7	Tot Costs	3247	16300	2546	5036	3045
CHOOSE LINE # TO BE GRAPHED(1-7) 7						
F1=TOP F2=BOT F3=FINO PgUp=PREV PgDn=NEXT G=GRAPH F10=EXIT						

Figure 2-58. Resource Summary File, Page 2

When the total cost line has been selected to be graphed, the following screen will appear:

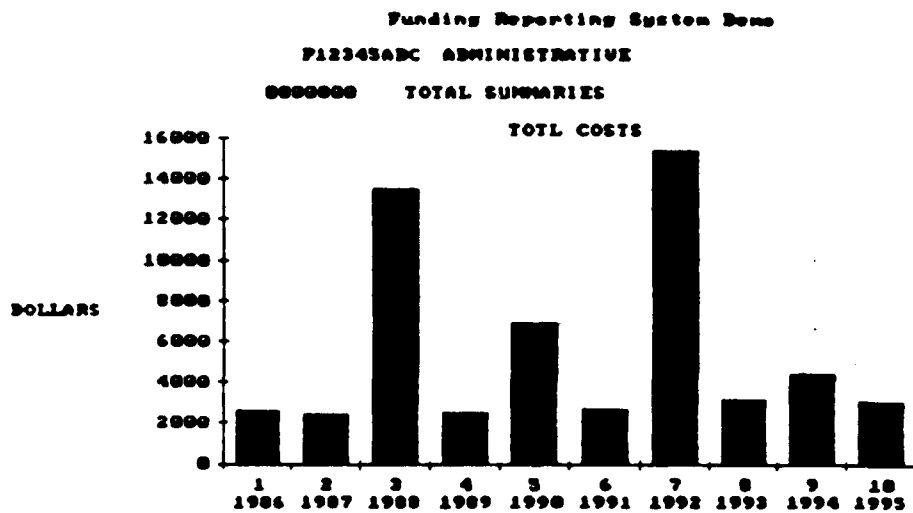


Figure 2-59. Resource Summary Graph

2.3.3.2 Display Financial Data. This function allows you to display Appropriation/AMS financial reports for an organization in either table or graphic form.

```

*****
  REVIEW AND APPROVAL
  DISPLAY OR GRAPH
*****

*****
  ENTER ORGANIZATION ID:  Z1
  ENTER APR ID      :  01
  ENTER AMS ID      :  69
  ENTER TREE ID     :  BF
*****

F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-60. Review and Approval Display or Graph

The user needs to enter the MRPM organizational code for the organization that created the funding report. The Appropriation ID and AMS ID numbers must also be entered. To print the correct headings, the facility component tree file ID must be specified (e.g., BF for buildings).

```

Installation : Z1      Fort(Prepared As Requested)
Appropriation : 01     Real Property Maintenance Account-1
AMS           : 69     ADMINISTRATION
FACES NO: 000000      TOTAL SUMMARIES
Costs in
Thousands of
Dollars

  Year      1986      1987      1988      1989      1990
1 Occ Count 4576      2374      2974      2838      2937
2 Lab Hours 3808      2193      5253      3123      3031
3 Eqp Hours 3808      2193      5253      3123      3031
4 Lab Costs  64        36        84        52        49
5 Mat Costs 163        8         112       4         55
6 Eqp Costs 13         7         16        11        9
7 Tot Costs 241        52        213       68        115
-----
  Year      1991      1992      1993      1994      1995
1 Occ Count 2565      3397      2758      2373      3134
2 Lab Hours 2263      3539      6627      1993      3186
3 Eqp Hours 2263      3539      6627      1993      3186
4 Lab Costs  36        59        113       32        54
5 Mat Costs  30        67        78        6         17
6 Eqp Costs  7         12        23        6         11
7 Tot Costs  75       139       215       44        83

Command Mode
F1=TOP  F2=BOT  F3=END  PgUp=PREV  PgDn=NEXT  G=GRAPH  F10=EXIT

```

Figure 2-61. Resource Summary File

When the G = GRAPH function is selected, the user can enter the number of the row to be graphed followed by an enter key, and the graph will be displayed.

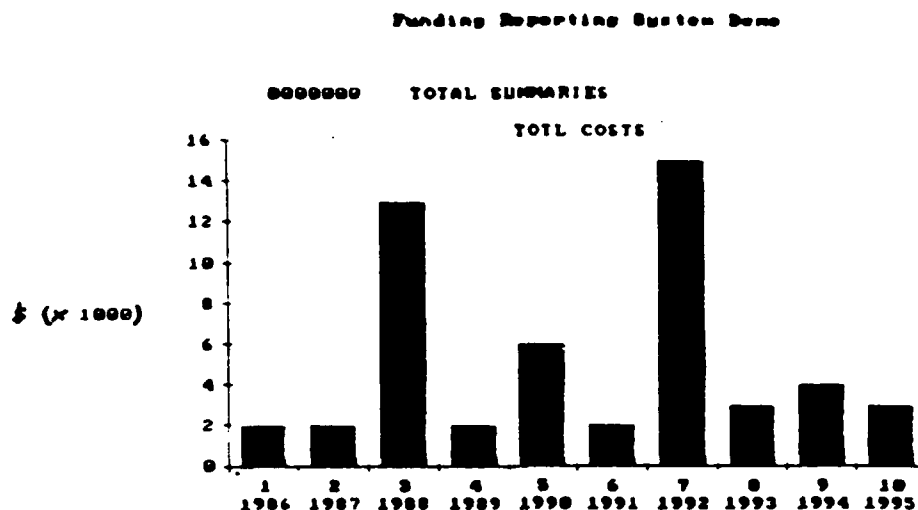


Figure 2-62. Financial Data Graph

2.3.3.3 Display Facility Totals. This feature allows you to review the table of facility total resource requirements.

Facility Total Resource Summary File

FACILITY ID: 01
CACES NO: 0000000

CAPEHART 8 PLEX
Total ten years cost: 2922626

	1986	1987	1988	1989	1990
1 Occ Count	28	28	28	28	28
2 Lab Hours	16631	22392	5661	5875	10627
3 Mat Hours	207465	90313	32439	20059	112533
4 Eqp Hours	16602	22363	5632	5866	10627
5 Lab Costs	290714	391423	98963	102704	185765
6 Mat Costs	207465	90313	32439	20059	112533
7 Eqp Costs	53127	71563	18024	18709	34007
8 Tot Costs	551307	553301	149427	141472	332306

	1991	1992	1993	1994	1995
1 Occ Count	28	28	28	28	28
2 Lab Hours	5928	15433	4814	8974	6277
3 Mat Hours	48947	197025	16644	40203	35723
4 Eqp Hours	5899	15404	4786	8945	6268
5 Lab Costs	103625	269773	84163	156875	109724
6 Mat Costs	48947	197025	16644	40203	35723
7 Eqp Costs	18877	49294	15315	28626	19994
8 Tot Costs	171451	516093	116123	225705	165441

Command Mode

F1=TOP F2=BOT F3=FIND F4=LIST F5=GRAPH PgUp=PREV PgDn=NEXT F10=EXIT

Figure 2-63. Resource Summary Graph

2.3.3.4 Display Trade Data

Facility Total Resource Summary File					
FACILITY ID: 01					
CAPENART 8 PLEX					
CACES NO: 0000000					
Total ten years cost: 2922626					
Year	1986	1987	1988	1989	1990
1 Occ Count	28	28	28	28	28
2 Lab Hours	16631	22392	5661	5875	10627
3 Mat Hours	207465	90313	32439	20059	112533
4 Eqp Hours	16602	22363	5632	5846	10627
5 Lab Costs	290714	391423	98963	102704	185765
6 Mat Costs	207465	90313	32439	20059	112533
7 Eqp Costs	53127	71563	18024	18709	34007
8 Tot Costs	551307	553301	149427	141472	332306

Year	1991	1992	1993	1994	1995
1 Occ Count	28	28	28	28	28
2 Lab Hours	5928	15433	4814	8974	6277
3 Mat Hours	48947	197025	16644	40203	35723
4 Eqp Hours	5899	15404	4786	8945	6248
5 Lab Costs	103625	269773	84163	156875	109724
6 Mat Costs	48947	197025	16644	40203	35723
7 Eqp Costs	18877	49294	15315	28626	19994
8 Tot Costs	171451	516093	116123	225705	165441
Command Mode					
F1=TOP F2=BOT F3=FIND F4=LIST F5=GRAPH PgUp=PREV PgDn=NEXT F10=EXIT					

Figure 2-64. Display Trade Data.

This program allows you to display the trade summary data in both table form and graphic form. The trade summary reports are a special application of the funding report.

2.3.4 Component and Task Quantity Takeoff and Dates

A record of the last date each component was replaced and/or a task was performed can be kept through the use of this screen. If you enter a date, the computer will mark it with a "U" for "User Entered Date". If the computer assumes a last performed date during calculations, the date will be marked "C" for "Computer Entered Date".

<pre> ##### FACILITY COMPONENT QUANTITY ##### </pre>									
<pre> ##### FACILITY ID: P12345ABC ##### </pre>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10EXIT

Figure 2-65. Component/Task Quantity Takeoff


```

Facility ID: [P12345ABC]
Facility Component, Quantity, and Dates
11/15/88
LEVEL 1 0000000 TOTAL SUMMARIES
LEVEL 2 0300000 ROOFING
LEVEL 3 0310000 ROOFING
LEVEL 4 0311000 ROOF COVERING
LEVEL 5 0311300 STEEP ROOFING
LEVEL 6 0311350 SHINGLES

-----
CACES NO Quantity U/M Command Mode Description Date Last Performed Next Scheduled
-----
0311350 2360.0 2 SHINGLES 1965 U 1990 U
NOTES: inspected 1988. needs replacement in 90.

```

F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 DATES F7 ADD F8 DEL F9 F10EXIT

Figure 2-66. Facility Information

The date that the task will be performed next can also be kept in this table. If no dates are entered, the MRPM system will assume you have been performing the task with the average frequency since the facility was constructed. Quantities can also be changed on this screen.

The system will help you enter your dates correctly for all component replacements. Record the component replacement date in the component record. The system will automatically add the dates to the correct replacement task also.

```

Facility ID: [P12345ABC]
Facility Component, Quantity, and Dates
11/15/88

CHANGE ALL DATES
LAST COMPLETED DATE 1965
NEXT SCHEDULED DATE 1990
LEAVE BLANK FOR NO CHANGE
PRESS (F6) TO CHANGE - (F10) TO CANCEL

```

F1 F2 F3 F4 F5 F6 BEGIN F7 F8 F9 F10EXIT

Figure 2-67. Change All Dates

The F6 DATES function key allows you to set all component replacement dates to a user-specified date. This is useful when a building is completely rehabilitated. With one command, all components will

be updated with the new date.

2.3.5 General Information.

```

#####
General Facility Information                                02-23-90
#####
Seq [1038] Command Mode
(1) Subinstallation [01] North Sector
(2) Area [01] SALERNO CIRCLE
(3) Facility ID [P08901] [LEARN THE MRPM SYSTEM]
(4) F4C Code [7112900] [FAM.HSG.CAPEHART CIV.GS 5 & 6]
(5) Number in F/G [10] (6) Travel Zone [3]
(7) Square Feet [2000] (8) Construction Year [1901]
(9) W/P Method Index [1] minor-inhouse,major-contract
(10) Special Cond. Mult.ID [01] Normal Conditions
(11) Scheduled disposal date [ ] [mm-dd-yy]
(12) Last Changed Date [02-22-90] [mm-dd-yy]
(13) Last Calculation Date [02-22-90] [mm-dd-yy]
(14) Facility Funding Profile [01] test
(15) Calculation Modeling Id [1] (1:4) As Entered
(16) Directory Specified [E:\ ] (blank for current directory)
(17) Components Entered (Y/N): [Y]
(18) Base Facility ID [ ]
(19) Percentage of Base Facility [ ]
#####
F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 MASK F7 ADD F8 DEL F9UPDATE F10EXIT

```

Figure 2-68. General Facility Information

This screen allows you to describe an individual facility or a number of identical (or similar) facilities as a group of facilities. This information is used by the calculation program to produce a resource estimate. The sequence number (SEQ) is an integer used by the MRPM to keep track of all tables related to one facility. All table names have the sequence number as the last four characters in the table name. The following information must be entered:

1. Subinstallation ID. Enter the two-character ID for the subinstallation as defined previously in Section 2.2.4.1.

2. Area ID. Enter the two-character ID for the area as previously defined in Section 2.2.4.1.

3. Facility ID. Enter the nine-character IFS ID. If modeling a group of facilities, use a "G" as the first letter of the ID.

4. F4C Code. Enter the seven-character F4C code.

5. Number in F/G. Enter 1 for an individual facility or the number of individual facilities in a facility group.

6. Travel Zone. Enter the two-character code to define the distance from the shop to the facility from Table 2-3, Travel Zones and times.

7. Square Feet. Enter the amount for the primary unit of measure. This would be gross square feet of floor area for building facilities.

8. Construction Year. Enter the year the facility was originally built.

9. W/P Method Index. Select the way the work will be performed for this facility and enter the two-character work performance (W/P) ID as defined previously in Section 2.2.3.3.5.

10. Special Condition Multiplier ID. Select the correct special condition multiplier list to be applied and enter the appropriate two-character ID as previously defined in Section 2.2.4.3.

11. Scheduled Disposal Date. Enter the date if known. No resources will be programmed for this facility after this date.

12. Last Change Date. This date is set by the computer as changes are made to this file.

13. Last Calculation Date. This date is set by the computer as calculations are done by the program.

14. Facility Funding Profile. Select the correct facility funding profile and enter the correct two-character ID as defined previously in Section 2.2.4.5.

15. Calculation Modeling ID. Select the method to be used to calculate resource predictions for this facility:

(1) Components. Before performing calculations, you have defined the components that comprise each facility through the model facility menu. With this modeling method, three different levels of calculations can be performed as defined in the next section. You must define a CALCULATION METHOD and a TASK DISTRIBUTION METHOD if you enter the calculation method "All Tasks."

(2) Unit Cost by Age. The system will use the gross floor area listed in row 8 of the general facility information table and apply the ARM factor and the major cost task and MRT factors. The CALCULATION METHOD and TASK DISTRIBUTION METHOD are not required.

(3) Gross Floor Area Only. The system will use the gross floor area listed in row 8 of the general facility information table and apply the average Army summary resource requirements with your labor, material, and equipment rates. The CALCULATION METHOD and TASK DISTRIBUTION METHOD are not required.

The system will take the year of construction (e.g., 1942) and the report period dates (e.g., 1986 through 1995) and convert the report years to facility ages (1986: Age = 44; 1995: Age 53). The system will go to the correct total resource summary table and read the LH, MC, and EH resource requirements per unit of measure for the required ages (e.g., Age = 44, LH = 0.069 hr/sq ft, MC = \$0.76/sq ft, EH = 0.037 hr/sq ft). The system will go to the Trade Cost Table and read the carpentry shop rates for labor and equipment (L = \$10/hr, E = \$2/hr). Total resource requirements will be produced by multiplying the facility gross square feet of floor area (e.g., 2000 sq ft) by the average resource requirement (e.g., 0.069 hr/sq ft) or 138 hours. Dollar costs are produced by multiplying total resources (e.g., 138 hr) by the labor rate (e.g., \$10/hr) or \$1380.

(4) Recurring Maintenance Factors (RMF). The system will use the gross floor area listed in the general facility information table and apply the RMFs for the installation (the average of the past several years' expenditures). The CALCULATION METHOD and TASK DISTRIBUTION METHOD are not required.

The system will take the year of construction (e.g., 1942) and the report period dates (e.g., 1986 through 1995) and convert the report years to facility ages (1986: Age = 44; 1995: Age = 53). The system will go to the RMF table and read the total cost per unit of measure for the required ages (e.g., Age = 44, total cost = \$0.76/sq ft). Total dollar costs are produced by multiplying total resources per unit of measure (e.g., \$0.76/sq ft) by the gross square feet of floor area (e.g., 2000 sq ft) or \$1520.

(5) Do Not Model. No calculations will be performed on this facility.

16. Directory Specified. Enter the number of the directory in which the facility should be stored (i.e., for E:\17 enter E:\17). Leave blank for the current directory.

17. Components Entered. MRPM will automatically keep track of which facilities have components entered and which facilities do not have components entered.

18. Base Facility ID. If you are modeling a multi-use facility as one total facility and then using a percentage for each user, the facility ID for the base facility must be entered in this field.

19. Percentage of Base Facility. If this facility record is a part of a multi-use facility the percentage of the facility being used by this occupant should be entered in this field.

The F6 MASK key function will allow you to make the same change to a range of facilities with one command (e.g., change the calculation modeling method from RMF(4) to As entered (1)). Enter only the fields to be changed and the starting and ending facility ID.

```

*****
          SEQUENTIAL FACILITY EDITOR                      11/15/88
*****
*****
(1) Subinstallation [00]
(2) Area [nn]
(3) Starting Fac ID: [nnnnnnnn] Ending Fac ID: [nnnnnnnn]
(4) F4C Code [nnnnnn]
(5) Number in F/G [nnn]
(6) Travel Zone [nn]
(7) Square Feet [nnnnnnnn]
(8) Construction Year [nnnn]
(9) U/P Method Index [n]
(10) Special Cond Mult [nn]
(11) Scheduled Disposal Date [mm/dd/yy] [mm/dd/yy]
(12) Last Changed Date [mm/dd/yy] [mm/dd/yy]
(13) Last Calc Date [mm/dd/yy] [mm/dd/yy]
(14) Fac Fund Profile [nn]
(15) Calc Modeling ID [n]
*****
F1      F2      F3      F4      F5      F6      F7      F8      F9 SAVE F10EXIT

```

Figure 2-69. Sequential Facility Editor

2.3.6 Reports.

```

*****
          Facility Reports
          Selection Menu
*****
F4C/AMS Organizational Summary
Task Cost Report
Facility Component/Quantities
Ordered Yearly Task Report
Funding Report
Resource Summary
Copy Financial Report Files
Facility Totals Report
Combine Funding Reports
Trade Index Report
*****
E:\DATA\LEARN
*****
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-70. Facility Reports

This screen allows you to obtain several different reports on your printer. The following report formats are available with estimated pages produced:

- If you want to obtain a report by F4C codes summarized by area, subinstallation, and installation, use the "AMS/F4C Summary Report." The length of this report can be determined by counting one page for every three areas and subinstallations and one page for the installation totals.

- If you want a report of the total number of tasks performed for each component, system, etc. (occurrences) and total dollars for all systems, subsystems, components, and tasks in numerical order for a facility, use the "Task Cost Report." This report is approximately one to four pages long per facility.
- If you want a facility report showing the components, tasks, quantities, and dates, use the "Facility Component/Quantities Report." This report is approximately one to four pages long per facility.
- If you want facility task resources listed from the most expensive to the least expensive, use the "Ordered Yearly Task Report." This report has approximately one page per facility per year or period requested if you print only tasks costing more than 2 percent of the total annual cost.
- If you want to summarize your facility predictions by appropriation and AMS codes, use the "Funding Report." The report is approximately 10 pages long per Appropriation/AMS Code.
- If you want a facility report showing a complete list of all labor, material, and equipment resource information for all tasks, use the "Resource Summary Report." This report contains approximately 10 pages per facility.
- If you have funding reports stored in several directories, use the "Copy Financial Report File" to copy the files to your current directory.
- If you want a report showing the total dollars predicted for each facility, use the "Facility Total Resource Report."
- If you want to combine all funding reports into one total for the installation, use the combined funding report function.
- If you want to obtain reports of labor by trades use the trade index report.

2.3.6.1. F4C/AMS Organizational Summary Report. Selecting this option provides you with an F4C and AMS summary report. The report shows total resources summarized at the area, subinstallation, and installation organizational levels. You can select ranges of F4C/AMS codes for the report and facility IDs within the F4C/AMS range. The starting year and number of years to print must also be specified.

```

=====
AMS/F4C Summary Report
Input Screen
=====
Enter the low F4C Code: 6101100
Enter the high F4C Code: 6101100

Enter the low Facility ID: P12345ABC (Enter blanks to
Enter the high Facility ID: P99999ZZZ print all facilities)

Enter the starting year: 1986
Enter the number of years to report: 10 (max 10)

Print Option: 1
(1) Actual Unit
(2) K Unit
=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-71. AMS/F4C Summary Report

Appendix C, pages C-1 through C-4 and pages C-5 through C-8, contains a sample F4C and AMS Organizational Summary Report. The first line of the heading for each page of this report states the name of the report: "ORGANIZATIONAL SUMMARY REPORT." The second line of the heading gives the installation name: "Installation: Funding Reporting System Demo," the date the report was generated: "5/JUN/87," and the page number of the report: "Page: 1".

The body of each page contains two summary tables. Area totals are given first. Subinstallation totals are given second, and installation totals appear last. F4C or AMS codes are printed with each summary total. The subinstallation or installation and area IDs are printed as the left side heading. The total number of facilities summarized in the group and the total gross square feet of floor area for all summarized facilities are also printed.

There is one column of data for each report year. The year is printed as the column header.

Eight rows of information are given:

1. Occurrences. The total number of individual tasks performed during the year for all facilities within this summary.

2. Labor hours. The total number of labor hours required during the year for all facilities within this summary.

3. Equipment hours. The total number of equipment hours required during the year for all facilities within this summary.

4. Labor costs. The total number of dollars required to pay for the labor for all facilities within this summary.

5. Material costs. The total number of dollars required to pay for the material for all facilities within this summary.

6. Equipment costs. The total number of dollars required to pay for the equipment for all facilities within this summary.

7. Totals. The total labor plus material plus equipment cost required for all facilities within this summary.

8. Total dollars for all years. The grand total of the individual year totals printed in the "Totals" row above.

2.3.6.2 Task Cost Report. This report provides you with a list of all tasks performed for each facility during the reporting years. Tasks will be printed in numerical order. The total number of tasks performed for each task, component, subsystem, and system will be printed with the total costs.

```

*****
FACILITY TASK COST REPORT
*****
Please Enter Facility ID => P12345ABC
*****
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-72. Facility Task Cost Report

Appendix C, pages C-9 and C-10, contains a sample Facility Task Cost Report. The first line of the header for each page of the report gives the date and time, "6/05/87 13:06:41", The title, "FACILITY TASK COST REPORT", and the page number "Page 1". The second line gives the installation name "INSTALLATION: Funding Reporting System Demo" and the facility ID "FACILITY ID: P12345ABC".

The columns in the report contain information for each of the report years. The total number of tasks performed (occurrences "OCC") with respect to the row item (task component, system, total facility) is printed along with the total dollars spent.

The rows of this report list the complete tree structure of the facility from the total facility, systems, subsystems, components, and tasks. Each row of the report is composed of two printed lines of information. The first line contains the CACES number followed by the description. The second line gives the total number of task occurrences and the total dollar costs for each report year.

There is one column of data for each report year. The year is printed as the column header.

2.3.6.3 Facility Component Quantities and Dates. This report provides you with a list of all components and quantities, tasks, and last completed and next scheduled dates.

This report provides you with a list of all

components and quantities, tasks, and last completed and next scheduled dates.

```

*****
Facility Component / Quantity
*****

ENTER FACILITY ID TO PRINT ==> P12345ABC

*****
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-73. Display Task/Component Tree Structure

Appendix C, page C-11, shows a sample Facility Component Quantities and Dates report. The header contains the report title, "Facility Quantity and Date Report," the "Facility ID P08901," the page number, "Page 1," and the date "6/5/87."

The first column of the report lists the level in the tree structure from the top of the tree, which is the total facility. The second column contains the number of the item within the level given in column one.

The CACES numbers and descriptions are shown indented by levels in the next column. The fourth column contains the quantity for each component. The fifth column lists the unit of measure ID.

The last two columns show the last and next scheduled dates for component replacement and task performance. Notice that a "U" is shown if the user has set this date and a "C" is shown if the computer has assumed the date shown.

The last tasks for every component are always the component replacement tasks.

2.3.6.4 Ordered Task Report. This report provides you with the total dollars spent during the time period and the tasks performed, listed from the highest cost to the lowest cost task.

(a) Yearly by Facility ID.

```

*****
YEARLY BY FACILITY ID
*****

STARTING YEAR .....(YYYY) ==> 1986
NUMBER OF YEARS ..(MAX 10) ==> 10
LOW FACILITY ID .....(9X) ==> P12345ABC
HIGH FACILITY ID .....(9X) ==> P99999XYZ
LOWER PERCENT CUTOFF ..(nn) ==> 2
TASK REPORT OPTIONS ....(n) ==> 2
(1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK)
*****

F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-75. Range by Facility Group ID

When selecting this option, you must enter the first year to be reported, the total number of years to be reported starting with the year to report, the range of facilities to be printed, and the lowest percentage of yearly cost to be printed. The system will order all tasks and components from highest to lowest cost and then print all tasks with a percentage of yearly cost equal to or above the cutoff point defined by the user.

(b) Yearly by F4C Code.

```

*****
ORDERED TASK REPORT GENERATOR
*****

PLEASE SELECT THE TYPE OF REPORT

YEARLY BY FACILITY ID
YEARLY BY F4C CODE
YEARLY BY FUNDING REPORT
PERIOD BY FACILITY ID
PERIOD BY F4C CODE
PERIOD BY FUNDING REPORT

REPORT ON EACH FACILITY ID
SUMMARY REPORT ON EACH F4C CODE

*****

F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-76. Ordered Task Report Generator

Selecting this option allows you to obtain either one separate report for each facility ID or one summary report for the F4C range specified.

(1) Report on Each Facility ID.

```

*****
YEARLY BY F4C CODE
*****

*****
STARTING YEAR .....(YYYY) ==> 1986
NUMBER OF YEARS ..(MAX 10) ==> 10
LOW F4C CODE .....(7X) ==> 6000000
HIGH F4C CODE .....(7X) ==> 6999999
LOWER PERCENT CUTOFF ..(nn) ==> 2
TASK REPORT OPTIONS ....(n) ==> 2
(1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK)
*****

F1  F2  F3  F4  F5  F6  F7  F8  F9  F10EXIT

```

Figure 2-77. Yearly by F4C

Selecting this option requires you to enter the first year to report, the total number of years to report starting with the first year, the F4C range, and the lowest percentage of annual costs to print on the report.

(2) Summary Report on Each F4C Code.

```

*****
YEARLY BY F4C CODE
*****

*****
STARTING YEAR .....(YYYY) ==> 1986
NUMBER OF YEARS ..(MAX 10) ==> 10
LOW F4C CODE .....(7X) ==> 6000000
HIGH F4C CODE .....(7X) ==> 6999999
LOWER PERCENT CUTOFF ..(nn) ==> 2
TASK REPORT OPTIONS ....(n) ==> 2
(1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK)
*****

F1  F2  F3  F4  F5  F6  F7  F8  F9  F10EXIT

```

Figure 2-78. Range by File Name

Selecting this option requires you to enter the first year to report, the total number of years to report starting with the first year, the F4C range, and the lowest percentage of annual cost to print on the report.

(c) Yearly by Funding Report.

```

=====
      ORDERED TASK REPORT GENERATOR
=====
      PLEASE SELECT THE TYPE OF REPORT
      YEARLY BY FACILITY ID
      YEARLY BY F4C CODE
      YEARLY BY FUNDING REPORT
      PERIOD BY FACILITY ID
      PERIOD BY F4C CODE
      PERIOD BY FUNDING REPORT
      ORGANIZATION ID = ZZ
      APPROPRIATION ID = 01
      AMS CODE = 69
      TREE ID = BF
=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-79. Ordered Task Report Generator

Selecting this option requires you to enter the organization ID, appropriation ID, and AMS Code ID.

```

=====
      YEARLY BY FUNDING REPORT
=====
      STARTING YEAR .....(YYYY) ==> 1986
      NUMBER OF YEARS ..(MAX 10) ==> 10
      LOWER PERCENT CUTOFF ..(nn) ==> 2
      TASK REPORT OPTIONS ....(n) ==> 2
      (1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK)
=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-80. Range by File Name

The first year to report, the total number of years to report, and the lowest percentage of annual cost to print on the report are entered.

(d) Period by Facility ID.

```

*****E
* PERIOD BY FACILITY ID *
*****E
STARTING YEAR .....(YYYY) ==> 1986
ENDING YEAR .....(YYYY) ==> 1995
LOW FACILITY ID .....(9X) ==> P12345ABC
HIGH FACILITY ID .....(9X) ==> P12345ABC
LOWER PERCENT CUTOFF ..(nn) ==> 2
TASK REPORT OPTIONS ....(n) ==> 2
(1.BY COMPONENT 2.B/ TASK 3.BY COMPONENT & TASK)
*****E

```

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

Figure 2-81. Period by Facility Group ID

Selection of this option requires the user to enter the starting and ending report years, the facility ID range, and the lowest percentage of annual cost to report.

(e) Period by F4C Code.

```

*****E
* ORDERED TASK REPORT GENERATOR *
*****E
PLEASE SELECT THE TYPE OF REPORT
YEARLY BY FACILITY ID
YEARLY BY F4C CODE
YEARLY BY FUNDING REPORT
PERIOD BY FACILITY ID
PERIOD BY F4C CODE
PERIOD BY FUNDING REPORT
REPORT ON EACH FACILITY ID
SUMMARY REPORT ON EACH F4C CODE
*****E

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 2-82. Ordered Task Report Generator

(1) Report on Each F4C Code.

```

*****
* PERIOD BY F4C CODE *
*****

*****
* STARTING YEAR .....(YYYY) ==> 1986 *
* ENDING YEAR .....(YYYY) ==> 1995 *
* LOW F4C CODE .....(7X) ==> 6000000 *
* HIGH F4C CODE .....(7X) ==> 6999999 *
* LOWER PERCENT CUTOFF ..(nn) ==> 2 *
* TASK REPORT OPTIONS ....(n) ==> 2 *
* (1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK) *
*****

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 2-83. Period by F4C Code

You must enter the starting and ending report years, the F4C range, and the lowest percentage to print.

(2) Summary Report on Each F4C Code.

```

*****
* PERIOD BY F4C CODE *
*****

*****
* STARTING YEAR .....(YYYY) ==> 1986 *
* ENDING YEAR .....(YYYY) ==> 1995 *
* LOW F4C CODE .....(7X) ==> 6000000 *
* HIGH F4C CODE .....(7X) ==> 6999999 *
* LOWER PERCENT CUTOFF ..(nn) ==> 2 *
* TASK REPORT OPTIONS ....(n) ==> 2 *
* (1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK) *
*****

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 2-84. Range by F4C Code

You must enter the starting and ending years to report, the range of F4C codes, and the lowest percentage to print.

(f) Period by Funding Report.

```
*****  
***** ORDERED TASK REPORT GENERATOR *****  
*****  
  
*****  
***** PLEASE SELECT THE TYPE OF REPORT *****  
*****  
***** YEARLY BY FACILITY ID *****  
***** YEARLY BY F4C CODE *****  
***** YEARLY BY FUNDING REPORT *****  
***** PERIOD BY FACILITY ID *****  
***** PERIOD BY F4C CODE *****  
***** PERIOD BY FUNDING REPORT *****  
  
***** ORGANIZATION ID = ZZ *****  
***** APPROPRIATION ID = 01 *****  
***** AMS CODE = 69 *****  
***** TREE ID = BF *****  
*****  
*****  
  
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
```

Figure 2-85. Ordered Task Report Generator

Enter the organization ID, the appropriation ID, and the AMS code ID.

```

*****
**          PERIOD BY FUNDING REPORT          **
*****
*****
** STARTING YEAR .....(YYYY) ==>  1986      **
** ENDING YEAR .....(YYYY) ==>  1995      **
**                                           **
**                                           **
**                                           **
** LOWER PERCENT CUTOFF ..(nn) ==>   2      **
** TASK REPORT OPTIONS ....(n) ==>   2      **
** (1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK) **
*****

```

Figure 2-86. Range by File Name

Enter the range of years to be added together and the lowest percentage of annual cost to report.

2.3.6.5 Funding Report. A funding report is a combination of all facility requirements for one specific appropriation and AMS code. The first screen allows you to generate report files to send to the MACOM for inclusion in the proposed program. The first option allows you to select one or all of the standard Army reports listed on the second screen. The second option allows you to select any

appropriation/AMS code for report generation. The third option allows you to print one of the reports generated in options one or two.

```
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT
```

Figure 2-87. Maintenance Resource Prediction Reports

1. Generate Report File From Standard APR/AMS Combinations.

USE CURSOR AND PAGING CONTROLS TO POINT TO FORMAT FOR REPORT

```

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-88. Standard Appropriations/AMS Report Formats

This selection allows you to select one of the standard Army reports from the list of standard reports by moving the arrow pointers to the correct report and pressing the enter key.


```

AMS FUNCTIONAL GROUP CODES
*****
AMS ID* AMS CODE #      AMS DESCRIPTION
*****
 61 • K19XX      ALL OTHERS
 62 • K2000     BUILDINGS
 63 • K2100     TRAINING
 64 • K2200     MAINTENANCE & PRODUCTION
 65 • K2300     RESEARCH, DEVELOPMENT & TEST
 66 • K2410     AMMUNITION STORAGE
 67 • K2420     OTHER COVERED STORAGE
 68 • K2500     HOSPITAL & MEDICAL
 69 • K2600     ADMINISTRATION
 70 • K2700     BACHELOR HOUSING
 71 • K2800     COMMUNITY
 72 • K2910     FAMILY HOUSING
  •
  •
  •
*****
USE CURSOR AND PAGING CONTROLS TO CHOOSE AMS ID FOR REPORT

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure-91. AMS Functional Group Codes

```

*****
MAINTENANCE RESOURCE PREDICTION REPORTS
*****

REQUESTED REPORT IS AS FOLLOWS:
  *****
  ORG CODE = 21
  APPROP ID = 01
  AMS ID = 72
  *****
PLEASE ENTER ADDITIONAL INFORMATION
ENTER THE STARTING YEAR FOR THE REPORT      : 1986
ENTER THE NUMBER OF YEARS TO REPORT (10 MAX) : 10
ENTER STARTING FACILITY ID (BLANKS IF ALL)   : P12345ABC
ENTER END FACILITY ID (BLANKS IF SAME AS START) : P99999XYZ
*****

F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-92. Maintenance Resource Prediction Reports

3. Print an Existing Report File.

```

*****
FUNDING REPORT PRINT INFORMATION
*****

*****
ENTER THE APR ID NO.           : 01
ENTER THE AMS ID NO.          : 07
ENTER "I" FOR INSTAL OR "S" FOR SUBINSTAL : I
ENTER THE SUB INSTAL OR INSTAL ID : ZZ
*****

F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-93. Funding Report Print Information

Enter the appropriation ID, AMS ID, installation or subinstallation indicator, and organization ID for the report to be printed.

```

*****
MAINTENANCE RESOURCE PREDICTION REPORTS
*****

*****
REQUEST PRINTED REPORT IS AS FOLLOWS:
*****
  *****
  ORG CODE = 21
  APPROP ID = 01
  AMS ID = 07
  SUB INST OR INSTAL = ZZ
  *****
  PLEASE ENTER ADDITIONAL INFORMATION
  *****
  ENTER THE STARTING YEAR FOR THE REPORT : 1986
  ENTER THE NUMBER OF YEARS TO REPORT (10 MAX) : 10
  *****

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-94. Maintenance Resource Prediction Reports

The system will display the above values, after which you can enter the years to be printed and select one of two print options: (1) total facility requirements plus total components (system) resources, or (2) all resources (total, system, subsystem, components and tasks).

Appendix C shows a sample Up-to-Date Installation Report. The header for this report contains the organization, appropriation, and AMS codes. The page number and date are shown on the right side of the page.

There is one column of data for each report year. The year is printed as the column header.

Eight rows of information are given:

a. Occurrences. The total number of individual tasks performed during the year for all facilities within this summary.

b. Labor hours. The total number of labor hours required during the year for all facilities within this summary.

c. Equipment hours. The total number of equipment hours required during the year for all facilities within this summary.

d. Labor costs. The total number of dollars required to pay for the labor for all facilities within this summary.

e. Material costs. The total number of dollars required to pay for the material for all facilities within this summary.

f. Equipment costs. The total number of dollars required to pay for the equipment for all facilities within this summary.

g. Totals. The total labor plus material plus equipment cost required for all facilities within this summary.

h. Total dollars for all years. The grand total of the individual year totals printed in the "Totals" row above.

4. Generate Systems Report for all APR/AMS Codes.

```

=====
GENERATE SYSTEM REPORT FOR
ALL APR/AMS CODES
=====
All Types Facility    [toggle space bar to change]

Enter the low Facility ID:          (Enter blanks to
Enter the high Facility ID:         print all facilities)

Enter the starting year: 1986
Enter the number of years to report: 10 (max 10)

=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-95. Systems report.

This is a special function that will generate a report containing only the total and systems level of detail. This can be applied when only tables are required by trade or system.

2.3.6.6 Resource Summary.

```

=====
INPUT SCREEN
=====
ENTER LOW FACILITY ID : P12345ABC
ENTER HIGH FACILITY ID : P99999XYZ

THE STARTING YEAR : 1986
ENTER NUMBER OF YEARS TO REPORT(MAX 10): 10

=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-96. Resource Summary Input, Screen 1

This function allows you to print one report for each facility by either F4C or Facility Number Range. The resources for all systems, subsystems, components, and tasks are printed. Printouts are extremely long and time-consuming, as costs are printed for every CACES number describing the facility.

```

#####
# INPUT SCREEN                                #
# ENTER LOW F4C CODE      : 6000000          #
# ENTER HIGH F4C CODE     : 6999999          #
# ENTER THE STARTING YEAR : 1986              #
# ENTER NUMBER OF YEARS TO REPORT(MAX 10): 10 #
#####

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 2-97. Resource Summary Input, Screen 2

You can select a range of facility numbers to be printed by stating the starting year and the number of years to report.

```

#####
# INPUT SCREEN                                #
# ENTER LOW F4C CODE      : 6000000          #
# ENTER HIGH F4C CODE     : 6999999          #
# ENTER THE STARTING YEAR : 1986              #
# ENTER NUMBER OF YEARS TO REPORT(MAX 10): 10 #
#####

```

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

Figure 2-98. Resource Summary Input, Screen 3

You also can select a range of F4C codes and all facilities within the F4C range will be printed.

Appendix C, pages C-17 through C-19, shows a sample Resource Summary Report. The header for this report contains the installation, facility ID, date, page number, and the name of the file containing the report printed.

There is one column of data for each report year. The year is printed as the column header.

Eight rows of information are given:

1. Occurrences. The total number of individual tasks performed during the year for all facilities within this summary.

2. Labor hours. The total number of labor hours required during the year for all facilities within this summary.

3. Equipment hours. The total number of equipment hours required during the year for all facilities within this summary.

4. Labor costs. The total number of dollars required to pay for the labor for all facilities within this summary.

5. Material costs. The total number of dollars required to pay for the material for all facilities within this summary.

6. Equipment costs. The total number of dollars required to pay for the equipment for all facilities within this summary.

7. Totals. The total labor plus material plus equipment cost required for all facilities within this summary.

8. Total dollars for all years. The grand total of the individual year totals printed in the "Totals" row above.

2.3.6.7 Copy Financial Report Files. This function will copy all financial reports from all subdirectories to the current directory. This must be done before you run financial reports.

```

=====
Financial Report Files Copy Function
=====
                                     ORGANIZATION ID ( XX )   : ZZ
=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-99. Financial Report Files Copy

2.3.6.8 Facility Totals Report. Appendix C contains a sample Facility Totals Report.

```

FACILITY TOTALS REPORT

INPUT SCREEN

1) ENTER THE FACILITY ID
2) ENTER THE F4C CODE

CHOOSE OPTION 1 OR 2: 1
F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

```

Figure 2-100. Resource Summary Input, Screen 1

This function allows you to print one report containing the total dollars predicted for each facility.

```

*****
FACILITY TOTALS REPORT
*****
      INPUT SCREEN
      ENTER LOW FACILITY ID :P12345ABC
      ENTER HIGH FACILITY ID :P99999XYZ
      ENTER THE STARTING YEAR: 1986
      ENTER NUMBER OF YEARS TO REPORT(MAX 10): 10
*****

```

Figure 2-101. Resource Summary Input, Screen 2

You can select a range of facility numbers to be printed by stating the starting year and the number of years to report.

```

*****
FACILITY TOTALS REPORT
*****
INPUT SCREEN
PRINT IN DOLLARS(D),
OR THOUSANDS DOLLARS(T): D
REPORT CONTENTS      : 1
1-INDIVIDUAL FACILITIES
2-INDIVIDUAL FACILITIES PER SQ. FOOT
PRINT OPTIONS        : 1
1-PRINTER
2-FILE NAMED:
3-PRINTER & FILE NAMED :
PRINT TOTAL OPTIONS  : 1
1-PRINT WITH TOTALS
2-PRINT TOTALS ONLY
*****

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT
Print in Dollars

```

Figure 2-102. Resource Summary Input, Screen 3

You also can select a range of F4C codes, and all facilities within the F4C range will be Printed.

```

*****
FACILITY TOTALS REPORT
*****
INPUT SCREEN
ENTER LOW F4C CODE      :6011100
ENTER HIGH F4C CODE     :6011100
ENTER THE STARTING YEAR:1986
ENTER NUMBER OF YEARS TO REPORT(MAX 10): 10
*****

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-103. Resource Summary Input, Screen 4

You can obtain reports in dollars or thousands of dollars. Reports can be sent to the printer or file.

```

*****
FACILITY TOTALS REPORT
*****
INPUT SCREEN
PRINT IN DOLLARS(D),
OR THOUSANDS DOLLARS(T): T
REPORT CONTENTS      : 2
  1-INDIVIDUAL FACILITIES
  2-INDIVIDUAL FACILITIES PER SQ. FOOT
  3-3 DIGIT F4C SUMMARY
  4-3 DIGIT F4C SUMMARY PER SQUARE FOOT
PRINT OPTIONS        : 1
  1-PRINTER
  2-FILE NAMED:
  3-PRINTER & FILE NAMED:
PRINT TOTAL OPTIONS   : 1
  1-PRINT WITH TOTALS
  2-PRINT TOTALS ONLY
*****
Print in Thousand Dollars
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-104. Resource Summary Input, Screen 5

2.3.6.9 Combine Funding Reports.

```

*****
TRADE INDEX REPORT
*****
Trade ID      : 01
Starting F4C ID : 0000000
Ending F4C ID  : 9999999

Report File T0100000.XDB will be Generated

Processing Facility ID: 32
*****
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-105. Combine Funding Reports

This function will combine all of the existing AMS funding reports for one appropriation ID. The combined report is stored under an AMS equal to "00".

2.3.6.10 Trade Index Report.

```

=====
      TRADE INDEX REPORT
=====
      Trade ID      : 17
      Starting F4C ID : 0000000
      Ending  F4C ID  : 9999999
=====
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-106. Trade Index Report.

This report function allows you to create a file that contains only information about tasks related to one trade. The file is named:

TAAFFFFF.XDB

where

T Indicates a trade file.
AA Indicates the Trade ID entered on the input screen.
FFFFF Indicates the first five characters of the starting F4C ID entered on the
 input screen.

MRPM will display the facility ID being processed on the screen as the report file is being generated.

2.3.7 Query: Questions and Answers. This set of three screens allows you to ask a question and obtain an answer. The first screen allows you to ask a question by specifying the ranges of information of interest to you. The first step is to write your question: "What administrative facilities will require shingle roof replacement in 1993?"

Assume: Administrative F4C is 6101100
 Shingle roof replacement is CACES No. 0311357.

The next step is to transform your question into ranges such as the following:

```

Facility Information
Query
PAGE 1 of 3

Low F4C Code [6101100]
High F4C Code [6101100]
CACES Id [0311357]
Starting Year [1993] (YYYY)
Ending Year [1993] (YYYY)

SELECT method of query: 1 (1, 2 or 3)
1 Query facilities HAVING task 0311357
2 Query facilities NOT HAVING task 0311357
3 List facilities ID HAVING task

PgDn = Next Screen F10 = Exit

```

Figure 2-107. Facility Information Query

The second step is to go to the next screen and indicate the information columns that should be displayed as an answer to your question.

```

Facility Information
Query
Indicate the Data Fields You Want to See (Y/N) PAGE 2 of 3

SELECT ALL Y/N (N)
Occurrences (Y)
Labor Hours (N)
Equipment Hours (N)
Labor Costs (N)
Material Costs (N)
Equipment Costs (N)
Total Costs (N)
Square Feet (Y)

PgUp = Previous Screen PgDn = Next Screen F10 = Exit

```

Figure 2-108. Facility Information Query--Data Fields

The third step is to go to the next screen and indicate the sorting order for the rows of information in your answer.

```

Facility Information
Query
=====
Indicate the Order You Want the Data Sorted   PAGE 3 of 3
Select 1, 2, or 3

F4C Code      (2)
Facility ID    (1)
Total Costs    (3)

PRINT REPORT FOR:  (1)
(1) ALL Facilities
(2) For a Range of AREAS

PgUp = Previous Screen  F6 = Begin Print  F10 = Exit

```

Figure 2-109. Facility Information Query--Order of Data

2.3.8 Model Facility. This screen allows you to construct a model using one of three different methods:

```

=====
Installation Level
Model Facility
=====

From IFS Database
From Input File
At Terminal
Input from EMS

Updated 24 June 1988

F1  F2  F3  F5  F6  F7  F8  F9  F10EXIT

```

Figure 2-110. Installation-Level Model Facility

2.3.8.1 Model Facility From IFS Database. Data can be transferred in two different forms: (1) summary data and (2) individual facility data.

2.3.8.1.1 Summary Data. Two different types of transfer files can be produced from the HQ-IFS system: (1) building file and (2) nonbuilding file. Both files contain identical information in the following order (five sets of four items in each record):

1. F4C Code (five characters)
2. Year of Construction (four characters)
3. Square Feet of Floor Area (nine characters)
4. Secondary Unit of Measure (nine characters).

For building facilities, the transfer file contains one summary "facility" for each year of construction for an F4C code (e.g., one entry for F4C = 7112900, Year = 1954; another entry for F4C = 7112900, Year = 1955). The total floor area for all individual facilities constructed during the year is reported (in square feet). The total secondary unit of measure for all individual facilities constructed during the year is reported.

For nonbuilding facilities, the transfer file contains one summary "facility" for each F4C code (e.g., one entry for F4C = 8211200). The year is set at 1970 as a default value. The total floor area for all individual facilities constructed during all years is reported (in square feet). The total secondary unit of measure for all individual facilities constructed during all years is reported.

MRPM combines the F4C code and the year of construction (**** for nonbuildings) to form the facility ID. For nonbuildings, the secondary unit of measure is entered into the MRPM floor area field.

2.3.8.1.2 Individual Facility Data. Two different types of transfer files can be produced from the HQ-IFS system: (1) building file and (2) nonbuilding file. Both files contain identical information in the following order (five sets of four items in each record):

1. Facility ID (nine characters)
2. F4C code (five characters)
3. Year of construction (four characters)
4. Square feet of floor area (nine characters)
5. Secondary unit of measure (nine characters).

For nonbuildings, the secondary unit of measure can be entered into the MRPM floor area field.

2.3.8.1.3 Data Entry.

```

*****
Model From IFS Database
Selection Menu
*****

IFS From USA Database
IFS From Germany Database

Updated 24 June 1988

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

```

Figure 2-111. IFS Options

The first screen allows you to select the correct type of data to be loaded into the system. The screens for the two data types are identical.

```

*****
MODEL FACILITY FROM IFS INPUT
*****

ENTER INPUT FILE NAME: ARMYBLDGS
ENTER:"1" FOR BLDG;"2" FOR NON-BLDG: 1

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

```

Figure 2-112. Model Facility From IFS Input

The second screen allows you to specify the name of the input file and the type of file as either buildings or nonbuildings. The system will load the data into the general facility file with the default values shown below:

- | | |
|---|-----------------------------|
| (1) Subinstallation | [01] |
| (2) Area | [01] |
| (5) Number in F/G | [1] |
| (6) Travel Zone | [3] |
| (9) W/P Method Index | [1] |
| (10) Special Cond Mult | [01] |
| (11) Scheduled Disposal Date [mm/dd/yy] |] |
| (14) Fac Fund Profile | [01] |
| (15) Calc Modeling ID | [3] for buildings |
| | [4] or [5] for nonbuildings |

2.3.8.2 Model Facility From an Input File.

```

FGG Batch File Prompt & Execution 20-Oct-86
Enter 4 Character Facility Sequence Number :1067

```

Figure 2-113. Model Facility From an Input File

This screen allows you to form a model from a computer file that contains CACES number, quantities, and descriptions. Simply type the correct facility sequence number.

2.3.8.3 Model Facility at Terminal.

```

=====
FACILITY COMPONENT QUANTITY
=====
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
=====

```

Figure 2-114. Component/Task Quantity Takeoff

Enter the facility ID that you wish to model.

```

Facility Component, Quantity, and Dates 11/15/88
Facility ID: [P12345ABC]
LEVEL 1 0000000 TOTAL SUMMARIES
LEVEL 2 0300000 ROOFING
LEVEL 3 0310000 ROOFING
LEVEL 4 0311000 ROOF COVERING
LEVEL 5 0311300 STEEP ROOFING
LEVEL 6 0311350 SHINGLES

Command Mode
CACES NO Quantity U/M Description Date Last Performed Next Scheduled
-----
0311350 2360.0 2 SHINGLES 1965 U 1990 U
NOTES: inspected 1988. needs replacement in 90.

F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 DATES F7 ADD F8 DEL F9 F10EXIT

```

Figure 2-115. Facility Information

This screen allows you to enter the CACES number, quantities, last performed date, and next scheduled date for the facility components and tasks.

2.3.9 Copy a Facility Record.

```

#####
#                                     #
#               Facility Id Copy Function               #
#                                     #
#####
#
#   Starting New Facility Id : P54321
#
#   Ending New Facility Id   : P54999   Leave blank for 1 facility
#
#   Existing Facility Id     : P12345ABC
#   Existing Facility located in (X1,Y1 or nn): Y1 (blank for current)
#   Place in directory       : 22 (blank for current)
#   Facility Id has the form >AA9999AAA<
#   Note: positions 3-6 must be numeric (0-9) when a range is specified
#
#
#               #####
#               #                                     #
#               #                                     #
#               #                                     #
#               #                                     #
#               #####
#####
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-116. Facility ID Copy Function

This screen allows you to make new facilities by copying existing facilities. The standard IFS facility ID format has been used with the exception that fields 3 through 6 can be numerical to automatically generate many new facilities from one existing facility with one command.

You can enter one single new facility ID or a range of new facility IDs. The existing facility ID must be entered. The directory in which the new facilities must be placed must also be specified.

If a range of new facilities is specified, the system will increment the number defined in columns 3 through 6 until the ending facility ID number in columns 3 through 5 is reached. A new facility will be created for each number in the range.

2.3.10 Global Change to Components.

```

*****
FACILITY ID COMPONENT CACES NUMBER CHANGER
*****
STARTING FACILITY ID.....>P12345ABC
ENDING FACILITY ID.....>P99999XYZ

CURRENT COMPONENT CACES NUMBER >0311110
NEW COMPONENT CACES NUMBER.....>0321110

Change last performed date ? (y/n) >Y
NEW LAST PERFORMED DATE..>1986 (YYYY) ex.(1986,2001))

*****
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-117. Facility ID Component CACES Number Changer

This function allows you to change the type of component and/or the replacement date for a range of facilities with one single command. This command could be used to show that 100 buildings with built-up roofs were changed to shingle roofs in 1985.

2.3.11 Facility Group to Dwelling Unit Conversion.

```

*****
Facility Group To Dwelling Unit Conversion
*****
ENTER FACILITY ID:  P12345ABC
DIVIDE COMPONENT QUANTITY BY:    4

*****
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-118. Facility Group to Dwelling Unit Conversion

This command allows you to divide all quantities in a building (such as a fourplex family housing building) by the number of units (4) to produce the component quantities associated with each dwelling unit.

2.3.12 Delete Resource Files.

```

Delete Resource Files

Starting Subdirectory Id : 22 (blank for current directory)
Ending Subdirectory Id : 23 (blank for one directory)
Deleting from Directory E:\22
To Directory E:\23

F1 F2 F3 F4 F5 F6 BEGIN F7 F8 F9 F10 EXIT

```

Figure 2-119. Delete Resource Files

This command allows you to delete all resource summary tables in a range of subdirectories. It can be used to free memory space in the computer.

2.3.13 Move Facilities to New Directory. This command allows you to move existing facilities from one directory to another directory by either an F4C range or a Facility ID range.

```

MOVE FACILITIES

MOVE BY:
F4C RANGE [toggle space bar to change]

BEGINNING F4C CODE: 6000000
ENDING F4C CODE: 6999999
TARGET DIRECTORY : 23 [blank for current directory]

MOVING FACILITY ID : 33

PROCESSING

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 EXIT

```

Figure 2-120. Move Facilities by F4C ID

If F4C ID option is selected, you must enter the F4C ID range and the directory to which the facilities are to be moved.

```

=====
MOVE FACILITIES
=====

MOVE BY:
FACILITY ID RANGE [toggle space bar to change]

=====
BEGINNING FACILITY ID: P06000
ENDING FACILITY ID: P07000
TARGET DIRECTORY : 56 [blank for current directory]
=====

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT

```

Figure 2-121. Move Facilities by Facility ID

If Facility ID option is selected, you must enter the Facility ID range and the directory to which the facilities are to be moved.

2.3.14 Delete Resource Total File.

```

=====
Delete Resource Total File
=====

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

```

Figure 2-122. Screen Display for Deleting Resource Total File.

This screen will allow you to delete the resource summary file when you are completely through with all reports and you desire to use the space for another application.

2.4 Review and Approval.

```

*****E
      Review and Approval
      Installation Level
*****V

Generate Resource Summary

Display Resource Summary

Report for Total & Components

Ordered Component & Task Reprt

Copy Financial Reports


Updated 12 Sep. 1988
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10EXIT
```

Figure 2-123. Installation-Level Review and Approval

2.4.1 Obtaining Financial Report Files From Subordinate Organizations and Facility Directories.

After all financial funding reports have been generated within the subordinate organization or facility directories (01 through 99), they can be copied to the current organization's directory by using the Copy Financial Report Files function under Facility Reports. All funding files will be copied from the subordinate directories to the parent directory.

2.4.2 Generate Resource Summary.

```

REVIEW AND APPROVAL
=====
OPTIONS:
      1 - CREATE REPORT FOR ORGANIZATION ID
      2 - PRINT EXISTING REPORT
ENTER OPTION 1 or 2 . 1
=====
F1    F2    F3    F4    F5    F6    F7    F8    F9    F10EXIT
```

Figure 2-124. Review and Approval

```
*****  
REVIEW AND APPROVAL REPORT GENERATION  
*****  
  
ENTER THE APR ID:    01  
  
ENTER THE AMS ID:    69  
  
ENTER CALCULATION CUTOFF DATE (mmddyyyy) 12301986  
  
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT
```

After selecting Create Report for Organization ID, you must enter the appropriation ID, AMS ID, and earliest acceptable calculation date into the system. The system will then check to ensure that all calculations were generated on or after the date entered. MRPM will list the names of any resource summaries that were not calculated after this date. If errors were encountered, you can either stop processing or continue.

```

REQUESTED REPORT IS AS FOLLOWS:

  ORG CODE   =  Z1
  APR ID NO. =  01
  AMS ID NO. =  69

PLEASE ENTER ADDITIONAL INFORMATION

ENTER STARTING YEAR FOR THE REPORT      : 1966
ENTER NUMBER OF YEARS TO REPORT (10 MAX):  10

```

2-101

If you continue, the system will ask you to enter the starting report year and the number of years to report. The F6 key will start processing. If funding files already exist, you will be asked if it is OK to delete the old files and create new files.

2.4.3 Display Resource Summary.

```

*****
  REVIEW AND APPROVAL
  DISPLAY OR GRAPH
*****

*****
  ENTER ORGANIZATION ID:  Z1
  ENTER APR  ID          : 01
  ENTER AMS  ID          : 69
  ENTER TREE ID          : BF
*****

F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-127. Review and Approval Display or Graph

This screen allows you to display your own or a subordinate financial resource summary in tabular and graphic forms. You must enter the organizational code to be displayed, appropriation ID, and AMS ID. To display the correct descriptions with the CACES numbers, you need to enter a Component Tree ID. The building component tree ID of BF is shown as a default.

```

Installation : 21 Fort(Prepared As Requested)
Appropriation : 01 Real Property Maintenance Account-1
AMS : 69 ADMINISTRATION
CACES NO: 0000000 TOTAL SUMMARIES
Costs in
Thousands of
Dollars

Year 1986 1987 1988 1989 1990
1 Occ Count 4576 2374 2974 2838 2937
2 Lab Hours 3808 2193 5253 3123 3031
3 Eqp Hours 3808 2193 5253 3123 3031
4 Lab Costs 64 36 84 52 49
5 Mat Costs 163 8 112 4 55
6 Eqp Costs 13 7 16 11 9
7 Tot Costs 241 52 213 68 115

Year 1991 1992 1993 1994 1995
1 Occ Count 2565 3397 2758 2373 3134
2 Lab Hours 2263 3539 6627 1993 3186
3 Eqp Hours 2263 3539 6627 1993 3186
4 Lab Costs 36 59 113 32 54
5 Mat Costs 30 67 78 6 17
6 Eqp Costs 7 12 23 6 11
7 Tot Costs 75 139 215 44 83

Command Mode
F1=TOP F2=ROT F3=END PgUp=PREV PgDn=NEXT G=GRAPH F10=EXIT

```

Figure 2-128. Resource Summary File

The screen print function key can be used to obtain a printout of the screen.

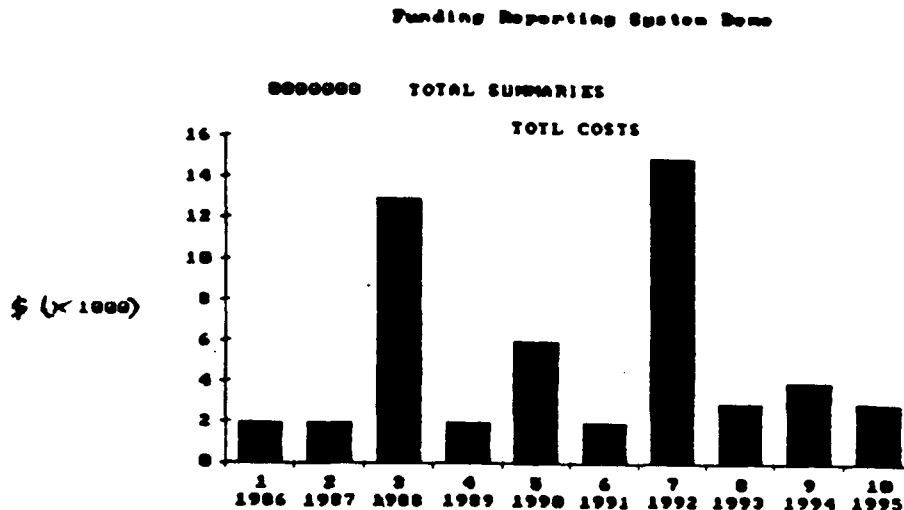


Figure 2-129. Resource Summary Graph

Selecting G for graph will display a message for you to enter the line number to be graphed. This graph can be printed by pressing the letter P for print followed by the letter P for printer. If you decide not to print, press the Control and C keys at the same time. Enter Q to quit and Y to confirm that you want to quit. This will return you to the table display.

2.4.4 Report for Total and Components.

resource summary. Appendix C shows sample reports.

```

=====
REVIEW AND APPROVAL REPORT PRINT
=====
=====
=====
=====
=====
=====
=====
=====
=====
=====
ENTER ORG ID OR <CR> FOR YOUR INSTALLATION:   Z1
ENTER THE APR ID:      01
ENTER THE AMS ID:      69
=====
=====
F1    F2    F3    F4    F5    F6BEGIN F7    F8    F9    F10EXIT

```

Figure 2-130. Report for Total and Components

```
*****  
MAINTENANCE RESOURCE PREDICTION REPORTS  
*****  
  
REQUEST PRINTED REPORT IS AS FOLLOWS:  
  
      ORG CODE   =   Z1  
      APR ID NO.=   01  
      AMS ID NO.=   69  
  
PLEASE ENTER ADDITIONAL INFORMATION  
ENTER STARTING YEAR FOR THE REPORT       : 1986  
ENTER NUMBER OF YEARS TO REPORT (10 MAX): 10  
  
*****  
F1          F2          F3          F4          F5          F6          F7          F8          F9          F10EXIT
```

Figure 2-131. Maintenance Resource Prediction Reports

2.4.5 Ordered Component and Task Report.

```

*****
          *****E
          ORDERED TASK REPORT GENERATOR      *
          *****V
*****

*****E
    PLEASE SELECT THE TYPE OF REPORT        *
*****
    YEARLY BY FACILITY ID                  *
    YEARLY BY F4C CODE                     *
    YEARLY BY FUNDING REPORT               *
    PERIOD BY FACILITY ID                 *
    PERIOD BY F4C CODE                    *
    PERIOD BY FUNDING REPORT              *
*****
*****V
*****
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 2-132. Ordered Component and Task Report

Use this function to obtain an ordered list of tasks and components for any funding report file.

If Yearly by Funding Report is selected, enter the organization ID, appropriation ID, and AMS code.

```

*****
          ORDERED TASK REPORT GENERATOR
*****

          *****
          PLEASE SELECT THE TYPE OF REPORT
          *****

          YEARLY BY FACILITY ID
          YEARLY BY F4C CODE
          YEARLY BY FUNDING REPORT
          PERIOD BY FACILITY ID
          PERIOD BY F4C CODE
          PERIOD BY FUNDING REPORT

          ORGANIZATION ID = Z1
          APPROPRIATION ID = 01
          AMS CODE        = 69
          TREE ID         = BF
          *****

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 2-133. Yearly by Funding Report

```

*****
# YEARLY BY FUNDING REPORT #
*****

*****
# STARTING YEAR .....(YYYY) ==> 1986 #
# NUMBER OF YEARS ..(MAX 10) ==> 10 #
#
#
#
# LOWER PERCENT CUTOFF ..(nn) ==> 2 #
# TASK REPORT OPTIONS ....(n) ==> 2 #
# (1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK) #
*****

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

```

Figure 2-134. Print Yearly by Funding Report

Now enter the first year to report and the total numbers of years. One report will be generated for each year. Enter the lowest percentage of annual cost to be printed.

```

*****
# ORDERED TASK REPORT GENERATOR #
*****

*****
# PLEASE SELECT THE TYPE OF REPORT #
#
# YEARLY BY FACILITY ID #
# YEARLY BY F4C CODE #
# YEARLY BY FUNDING REPORT #
# PERIOD BY FACILITY ID #
# PERIOD BY F4C CODE #
# PERIOD BY FUNDING REPORT #
#
# ORGANIZATION ID = Z1 #
# APPROPRIATION ID = 01 #
# AMS CODE = 69 #
# TREE ID = BF #
*****

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

```

Figure 2-135. Component and Task Period by Funding Report

If the Period by Funding Report is selected, enter the organization ID, appropriation ID, and AMS code.

```

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Now enter the starting and ending years for the period and the lowest percentage of total costs to be printed. One report covering the total period will be printed.

```

Financial Report Files Copy Function

ORGANIZATION ID ( XX ) : ZZ

```

This screen allows a reporting installation to copy financial files from installations whose files are located on the same machine.

2.4.7 Transmit Resource Files to Higher Organization. All files can be copied from your directory to a floppy disk by issuing a "Backup ROXX*.* a:" command (replace XX with your organization code). This can be done before entering or after leaving the MRPM system.

2.5 Research. This function is used by USACERL only and is not described in this user's manual.

1.Source: AR 415-17.

3. MAJOR COMMAND (MACOM) FUNCTIONS.

3.1 Introduction. Each reporting installation will transmit one report file for each required appropriation/AMS report. The review and approval functions described in Section 2.4 allow you to display the reporting installation information, generate your MACOM summary of all reporting installations, print reports, and transmit your summary information to HQDA.

You must be familiar with the methods by which the organization codes, appropriation codes, and AMS codes are stored in MRPM. Chapter 2 describes these conventions.

The next step in the process is to enter the Report Period screen by selecting Basic Information, General Information, Report Periods. EDIT this screen and enter your organization ID and report dates.

3.2 Generate Resource Summary (See Section 2.4.2). This set of screens allows you to prepare your appropriation/AMS resource summary reports to send to HQDA. Reporting installations will have used the review and approval section to generate the report files that were transmitted to your office.

Each report file contains the date that it was generated. The system will check this date against the date you enter as the cutoff date to ensure that your reporting organizations have sent you the correct reports. If report files are missing or are not current, MRPM will print a message for your action.

3.3 Display Resource Summary (See Section 2.4.3). You can display any resource report for one of your reporting installations or your MACOM summary in tabular and bar chart forms.

3.4 Report for Total and Components (See Section 2.4.4). You can obtain a printed copy of any report in this screen.

3.5 Ordered Component and Task Report (See Section 2.4.5). You can obtain the most costly tasks performed through this function.

3.6 Transmit Resource Summary (See Section 2.4.6). A copy of your MACOM files can be transmitted to HQDA for review and approval.

4. ARMY COMMAND (HQDA) FUNCTIONS.

4.1 Introduction. Each reporting MACOM will transmit one report file for each required appropriation/AMS report. The review and approval functions of MRPM allow you to display the Army information, generate your MACOM summary of all reporting installations, and print reports.

You must be familiar with the methods by which the organization codes, appropriation codes, and AMS codes are stored in MRPM. Chapter 2 describes these conventions.

The next step in the process is to enter the Report Period screen by selecting Basic Information, General Information, Report Periods. *EDIT* this screen and enter your organization ID and report dates.

4.2 Generate Resource Summary (See Section 2.4.2). This set of screens allows you to prepare your appropriation/AMS resource summary reports. Reporting installations will have used the review and approval section to generate the report files that were transmitted to your office.

Each report file contains the date that it was generated. The system will check this date against the date you enter as the cutoff date to ensure that your MACOMs have sent you the correct reports. If report files are missing or are not current, MRPM will print a message for your action.

4.3 Display Resource Summary (See Section 2.4.3). You can display any resource report for one of your MACOMs or your Army summary in tabular and bar chart forms.

4.4 Report for Total Components (See Section 2.4.4). You can obtain a printed copy of any report in this screen.

4.5 Ordered Component and Task Report (See Section 2.4.5). You can obtain the most costly tasks performed through this function.

5. PROCEDURES.

5.1 Hardware and Software Requirements. The MRPM is a highly resource-intensive system. It requires the following hardware:

1. IBM PC/AT or equivalent
2. Math Coprocessor
3. Enhanced Color Graphics
4. 1200 B Modem
5. Hard Disk Drives (140 MB minimum)
6. 3 MB additional RAM
7. Printer (132-character)
8. Tape Backup System.

Software packages used by MRPM include:

1. MicroSoft Chart (for graphics)
2. Disk Operating System (DOS)
3. Maynard tape drive software
4. Core partitioning software.

5.2 Loading the MRPM System Into Your PC.

1. Check the System. Before you begin to set up the system you should check to see if the computer is functioning properly. First, if the unit has not been set up, follow the instructions in your computer's "Guide to Operations" manual to correctly set up the computer. Once the computer is set up, turn it on by flipping the red switch to "ON." If your computer uses a color monitor you must turn the monitor on separately. This can be accomplished by turning the uppermost dial on the monitor to the right until you hear it click. If the screen does not "light up" check to make sure that the monitor is plugged in to an outlet. Your screen should now display the "BASIC" menu.

2. Create the CONFIG.SYS File. To create the CONFIG.SYS file, insert the "Command Files" diskette into drive A. Then at the "C>" prompt, type "cd.." to see the "root" directory. At the next "C>" prompt, type the command "copy A:CONFIG.SYS C:" to create the file. To check the CONFIG.SYS file at the "C>" prompt, type "type CONFIG.SYS". You should see the following:

```
Break = ON
Files = 30
Device = ANSI.SYS
Device = VDISK.SYS 2944 512 /E
Buffer = 30
```

If there are any errors in this file, the system will not run correctly. Use the DOS EDLIN line editor to correct any errors in the file.

3. Creating the First Autoexec.bat File. This first file will allow you to see the directory that you are currently using. First, reinsert the "Additional Command" diskette into drive A. Now, at the "C>" prompt, type "copy A:AUTOEXEC.BAT C:". Once the "C>" returns, reboot the system by holding down

the "CTRL - ALT" keys and pressing the "DEL" key. The system should restart and set the prompt to ">" below "C:\".

4. Loading the Command Files to the Root Directory. Make sure the "Command Files" diskette is in drive A. Then check to see that you are in the root directory ("C:\") by typing "cd\". Then type "copy A:*. * C:". The following files should be listed after you type "dir":

<u>File</u>	<u>Size</u>
AUTOEXEC.BAT	234
CONFIG.SYS	120
ANSI.SYS	1651
VDISK.SYS	3307
SAVE.BAT	45
TMENU.BAT	46

5. Create the Needed Directories. The following directories will be needed to allow the MRPM system to function properly. Follow the steps to ensure that all needed directories are processed.

- a. Get into the root directory (C:\) of C drive. Type "C:" and press enter. Then type "cd\".
- b. Since the DOS directory should already be in place, create the directory to store the MAYNARD Tape Drive system by typing "md MAYNARD". Now make the directory current by typing "cd MAYNARD". Remove the MAYNARD diskette from the file folder and insert it into A drive. Type "copy A:*. * C:" to load the MAYNARD files onto the hard disk. Next, type "cd.." to prepare for the next step.
- c. Make certain that you are in the "D:\\" root directory before continuing.
- d. The following directory will be created now and will be filled later. Type "md MPM".
- e. Now move into the E: drive by typing "E:" after the DOS prompt. Make certain that you are in the "E:\\" root directory before proceeding.
- f. Next, create the directories for the data storage.
 - (1) Type "md MPMV2". When the DOS prompt returns,
 - (2) Type "cd MPMV2" to make the directory current. When the DOS prompt returns (E:\MPMV2),
 - (3) Type "md MPM". When the DOS prompt returns,
 - (4) Type "cd\" to return to root directory (E:\),
 - (5) Type "md DATA". When the DOS prompt returns,
 - (6) Type "cd DATA" to make the directory current. When the DOS prompt returns (E:\DATA);,
 - (7) Type "md LEARN". When the prompt returns (E:\DATA),
 - (8) Type "D:" to prepare for the next step.
- g. The following step involves filling each of the new directories with data. The following directories will be copied on at a time:

D: drive "MPM"

E: drive "DATA\LEARN"
"DATA\LEARNBAS"
"MPMV2\MPM"

h. The next step is to fill each of the directories one at a time by using the copy command. Type "cd XXXXXX" with "XXXXXX" being the name of the first directory you wish to "restore," then go to step C.

(1) Make certain that you are in the proper DRIVE "E:\ or "D:\. IF NOT, CHANGE THE DRIVE by typing "X:" and pressing "Enter" where "X" is the name of the DESIRED DRIVE.

(2) Type "cd\XXXXXX" with "XXXXXX" being the name of the directory you wish to restore.

(3) Type "copy a:*.*". Insert the first diskette of the "XXXXXX" directory. Press the enter key. For each additional diskette to be entered, press the F3 key which will show the "copy a:*.*". Insert the next diskette. Press enter key.

(4) This next directory will contain the graphics package CHART. Place the "Utilities" diskette in drive A and type "SETUP". Follow the directions carefully. When the program asks for the drive on which to store the program, answer "E". When the program asks for the directory name, specify "MPMV2\MPM". When the program asks for your "printer device," use the menu keys to search for your printer (EPSON FX-100, HR) and specify "13". Now when the program asks you to type "CHART" to initialize it, instead type "CHART TEMPCHRT".

i. To continue, press "Q" and then enter a "Y" to confirm. Now CHART is initialized and you can continue.

6. Starting the MRPM System. This is the last step in the procedure. Once all directories are "restored," you need to REBOOT the system. This is done by holding down the "CTRL - ALT" keys and pressing the "DEL" key. The system should restart with all directories in place. The system will now use the new "AUTOEXEC" file to configure the final MRPM program. The system should bring you up in the "E:\DATA" directory and you're ready to begin.

5.3 Entering the MRPM System. Once the MRPM system has been loaded into your computer, all you have to do is turn your computer power switch on. The system will place you in the Installation Selection Menu. Move to the correct installation and type "MRPM."

5.4 Loading Installation Data Tables. The following paragraphs describe the work to be done to produce the best modeling system.

5.4.1 Basic Information.

5.4.1.1 General Information - Two tables need to be updated.

1. Organizational Chart. All major reporting installations are responsible for the management and reporting of several smaller installations. When you first load the system, you will need to enter each of

the smaller installations and the facility directories under each installation. Always use "Y" as the first character of the ORG CODE and the numbers 0 through 9, then letters A through Z as the second character. Always use your reporting installation's ORG CODE as the MACOM ID # (parent organization) for the smaller installation and the installation's ORG CODE as the MACOM ID # (parent organization) for each facility directory.

An example for one installation setup is shown in ORG # 149 through 167. Delete this example before entering your actual data.

2. Report Periods. Enter the beginning and ending report year. Look up your installation's material adjustment factor in Table 2-2 and enter it. Then look up your organization's ID in Table 2-1 and enter it. The number of lines per page can be calculated by multiplying the length of the paper (11 in.) by the number of printed lines per inch (6 lines per in.) to obtain the number to be entered (66).

5.4.1.2 Facility Resource Data. Two tables need to be updated:

1. Trade and Costs Data. Obtain the shop effective rates from your IFS and enter as in-house labor rates. Obtain an estimate of the contractor's equivalent shop rates from your estimating section. If costs for purchase, maintenance, and operations of equipment are normally charged directly to every project, enter the average cost for the typical shop maintenance truck. Do not include the parts of the equipment costs, such as purchase, that are not charged to the project but paid from an entirely different account. Obtain the cost for the contractor's equipment from your estimating section.

2. Work Performance. Review the two methods provided in your initial data base. Review the way you maintain each different area of your installation. Record how the work is actually being performed. For example: (1) family housing--all tasks by contractors, no in-house work, self-help for light bulbs, (2) barracks--contractors for all major work, troops for all interior painting, in-house for all other tasks, (3) cantonment area--contractors for all major work, in-house for all other tasks. You should have six or fewer different ways of maintaining your facilities. Number the different work methods starting from 1 to 6. Select a name for each work method which is related to either the facilities (family housing) or work method (all contractor work). Use option 1 - Define Methods to enter your selections into the computer.

Record the major way the work will be performed (contractor, in-house) for each work performance method defined. Use option 2 - Define All Work Types to enter your major work performance method. The system will assign every task under that work performance method with this method.

Use option 3 - Define Individual Tasks to go through the data base and assign work performance methods to the small number of tasks that would be done in the minor ways for each work performance method (troop, self-help, and in some instances, contract and in-house).

You have now defined exactly how the work will be performed at your installation.

5.4.1.3 Individual Facility Reference Data. Four tables need to be updated:

1. Subinstallation and Area Tables. You can divide your installation into two levels: subinstallations and areas within a subinstallation. Use numbers (01 through 99) to identify both areas and subinstallations. All subinstallations must have a unique number. All areas in your installation should be identified by number. No two installation areas can have the same area ID number.

2. Travel Zones. The standard 20 travel zone factors (TZF) are already defined in the data base (Table 2-3). If you have special areas (for example, secure) that take longer amounts of time, you can use zones 21 through 25.

$$\text{TZF} = 8 \text{ hr/day} / (8 \text{ hr} - \text{No. round trips} \times \text{Round trip time}) \quad [\text{Eq 5-1}]$$

Example. TZF (1) = $(8) / (8 - 2 \times .16) = 8 / 7.68 = 1.04$

3. Special Condition Multipliers. Make note of any occupants who cause different wear on your facilities. Record the unique topographic conditions that cause different wear. Define a different special condition multiplier ID (from 01 to 99) for each different condition. Define one condition at a time by answering the questions as the program prompts you.

Climatic weather zones for your installation can be obtained from Figure 5-1 or Table 2-1. Always select the "IFS Component Calculations" answer to the "Special Exterior Wall Multipliers" question when exterior and interior doors and windows are not defined in your facility models.

4. Financial Management. Check the appropriate table to ensure all required appropriations are defined for your installation. Add one or two appropriations for your equipment accounting purposes. Define one Facility Funding Profile ID (numbered 01 through 99) for each appropriation. Show the appropriation at 100 percent to indicate that all facilities using this funding profile will have 100 percent of the labor and material costs charged to this appropriation.

Show the correct way you are accounting for equipment costs (e.g., 20 percent to appropriation 05, and 80 percent to appropriation 06).

When you have a facility ID that must split charges, set up a new facility funding profile to show the correct funding percentages.

5.4.2 Facility Information.

5.4.2.1 General Information - The largest task is to place each facility into the correct subinstallation and area and relate the correct travel zones, work performance methods, special condition multipliers, and calculation modeling ID. Your initial IFS data loading has used the following default values:

- | | |
|---------------------------------|-------|
| 1. Subinstallation | 01 |
| 2. Area | 03 |
| 3. Travel Zone | 03 |
| 4. Work Performance Method | 01 |
| 5. Special Condition Multiplier | 01 |
| 6. Funding Profile | 01 |
| 7. Calculation Modeling ID | |
| a. For building 1 as modeled | |
| b. For nonbuildings | 4 RMF |

5.4.2.2 Facility Component Quantities and Dates. You can enter the last task performance date and the next scheduled performance dates. Record component replacement dates in the component record. The system will automatically add the dates to all replacement tasks.

5.4.2.3 Initial Setup for a Reporting Organization. Enter the system under your reporting installation. Change the installation name in the basic information, general information, and reports periods screen.

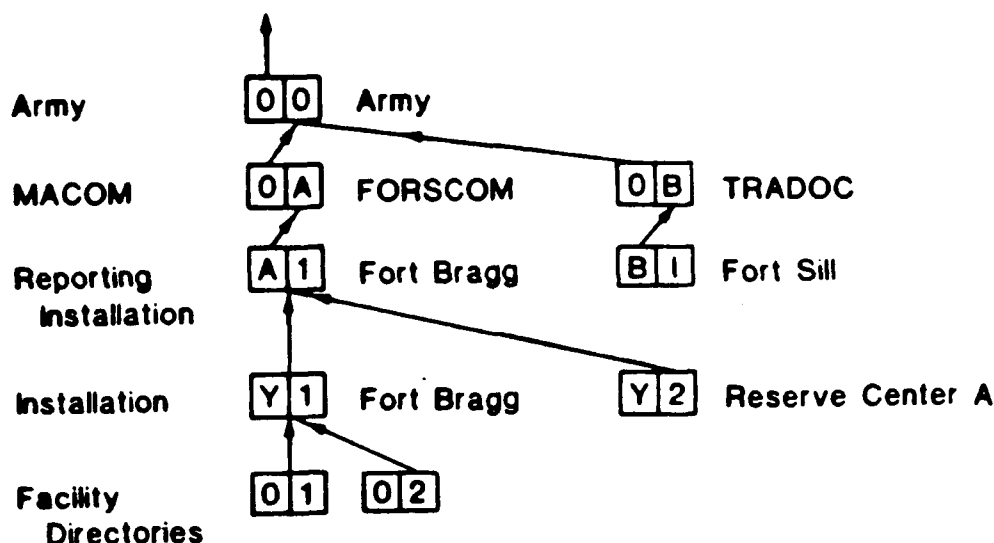


Figure 5-1. Organizational Structure

A reporting installation is defined as the organization that prepares and submits a Technical Data Report to a MACOM. Reporting installations (A1 Bragg in Figure 5-2) are currently listed in the MRPM Organizational Chart under each MACOM (0A FORSCOM in Figure 5-2).

All organizational codes are established as follows: (1) the first character identifies the next higher organization (i.e., the MACOM for installations), (2) the second character identifies the individual reporting organizations under the next higher organization (i.e., each installation for one MACOM.)

Several installations may report through one reporting installation. During the initial MRPM setup, the reporting installation must add each installation to the Organizational Chart. The main or primary installation should be given the organization code Y1. Other installations can be numbered Y2, Y3, etc. The MACOM ID should be the organization code for the reporting installation.

To ensure an efficient system, facilities are stored in many different directories. There should be no more than 300 facilities in any one facility directory. Facility directories are numbered from 01 to 99. One directory can contain: (1) all facilities located in several housing areas, (2) all facilities located in one housing area, (3) 300 facilities located in one housing area, or (4) all administration buildings. The reporting installations will enter each facility directory as an organization code. The MACOM ID should be the installation's organization code (Y1, Y2, Y3).

5.4.2.4 Facility Calculation Strategy. You should plan a strategy for performing calculations. Divide your list of facilities by F4C into groups that would require processing time of 12 hours or less. You can run each group overnight and results will be ready the next morning.

5.5 Entering Updated Installation Information. Select Basic Information or Facility Information and move to the screen that allows you to enter your new or updated information.

5.6 Modifying Existing Basic Task Information. The basic task data can be modified by selecting "Basic Information," "Facility Resource Description Data," and "Basic Tasks." FIND the task to be changed and EDIT. Any information on the basic task can be changed and the currently defined facilities will use the changed data to perform the next resource calculation.

The tasks for a component are organized in a very specific manner. The complete component replacement task is the last task in the list of tasks for the component. The MRPM calculation procedure will always use the last task listed as the replacement task.

5.7 Adding New Tasks to an Existing Component. Adding a new task to an existing component is not recommended. Each existing facility has a list of the tasks that were used for the component. If the Army-wide or installation-wide list of tasks were changed, you would have to change the task numbers in each facility.

5.8 Adding New Components and Tasks. A new component can be added by selecting "Basic Information," "Facility Resource Description Data," and "Basic Task Table." You must review the component tree organization to decide where the new component should reside and you must select a number for the component. Press the ADD function key and enter the task number for the replacement task. MRPM will determine if summary levels need to be added. You will be asked to enter the definition of each added summary level. After you have added the definitions the system will allow you to enter all of the task information. When you have added all task information press the SAVE key. Now use the ADD and SAVE keys to enter the remaining tasks.

5.9 Adding a New Facility. To add a new facility, start by entering the basic facility information by selecting "Facility Information" and "General Information." Press ADD and enter the first three identifiers for the subinstallation, area, and facility number. Turn to Section 2.3.5 for a description of each item on the screen. Press SAVE when all information has been entered correctly. If you are using RMF or gross square feet of floor area as your modeling method, you have completed the addition of a new facility. Press F10 to EXIT.

If you are defining components, select "Facility Information," "Model Facility," and "At Terminal."

5.10 Performing Resource Prediction Calculation. First ensure the latest shop costs are in the trade table (select "Basic Information," "Facility Resource Description Data," and "Trade and Costs"). Check for proper report period dates (select "Basic Information," "General Information," and "Report Period").

Move to the calculation screen (select "Facility Information" and "Resource Calculation"). The report data will be displayed; you may enter a request for calculations. (See Section 2.3.2 for details.)

5.11 Display Resource Predictions. Select "Facility Information" and "Display Resources."

5.12 Obtaining Appropriation Resource Summary Information. Once all facility calculations have been performed, select "Facility Information," "Facility Reports," and "Funding Reports." You must first generate a report file that will be transmitted; then you can print the report from the generated report file.

5.13 Sending Summary Information to the MACOM. See Section 2.4.5.

5.14 Saving Files.

5.14.1. Saving Files on Diskette. To back up a directory on diskette, do the following:

1. Move to the correct directory e.g., \DATA\Y1 Type: cd \DATA\Y1.
2. Press Enter key.
3. Type: backup \DATA\Y1\RMSY *.* or backup \DATA\Y1*.*
4. Press Enter key and follow the instructions on the screen.

5.14.2 Saving Files on the Tape Cartridge. To back up a directory on tape, do the following:

1. Type: "TMENU". A menu screen should appear on the monitor with the title "TMENU (V2.0)". Be certain that the BACKUP option is highlighted in RED. If this is not the case, use the arrow keys ("←" "→") or the space bar to toggle to the BACKUP option.
2. Use the arrow key (↓ Down) to highlight the SELECT option.
3. Press Enter.
4. Use the arrow keys (↑ up and ↓ down) to select the drive you wish to back up (e.g., Drive E:).
5. Press Enter. A directory listing of "E: drive" should appear on the screen. Since you would like to back up E: \DATA\Y1, use the arrow keys (↑ up and ↓ down) to select the desired directory.
6. Press Enter. A directory listing of E\DATA" should appear on the screen. Use the arrow keys (↑ up and ↓ down) to select the desired subdirectory.
7. Press <space bar>. Answer "Y" (Yes) to the prompt.
8. Hold down <ctrl> and press <enter>. Now the screen should display the original menu. Notice that the "40" option is highlighted.
9. Press Enter (to begin backup procedures).
10. Now type a "label" name for the backup. The name should be unique and should adequately identify the backup for future reference. (Note: Once the procedure is complete, the status screen will display: "BACKED UP XXX FILES IN XX DIRECTORIES. Type any key to continue."
11. Press <Enter>. Use the arrow keys to select the QUIT option or press <Enter> to back up another directory. Repeat the above steps.

5.15 Restoring Information.

5.15.1. Restoring Files From Diskettes. To restore a directory, do the following:

1. Move to the correct directory (e.g., \DATA\Y1). Type: cd \DATA\Y1.
2. Press Enter key.
3. Type: Restore \DATA\Y1*. * (drive letter):
4. Press Enter key and follow the instructions on the screen.

5.15.2 Restoring Information From Tape Cartridge. To restore a directory on tape, do the following:

1. Type: "TMENU". A menu screen should appear on the monitor with the title "TMENU (V2.0)". Use the arrow keys (← and →) or the space bar to toggle to the RESTORE option.
2. Use the arrow key (↓ down) to highlight the SELECT option.
3. Press Enter.
4. Search for the "label" name of the desired back up set by answering the questions (directory and searching) on the selection screen. (You can search faster by answering no to the directory prompt.)
5. Select the "label" name by answering "y" to the directory prompt.
6. Press <space>.
7. Hold down <ctrl> and <enter>.
8. Use arrow keys (↑ up and ↓ down) to select DRIVE option.
9. Press Enter.
10. Use arrow keys (↑ up and ↓ down) to select desired drive.
11. Press Enter.
12. Press Enter.
13. Type "y" to restore the information to the hard disk. Once the procedure is complete, the status screen will display: "RESTORED XXX FILES IN XX DIRECTORIES. Type any key to continue."
14. Press Enter. Use the arrow keys to select the QUIT option or press Enter to restore another label backup set. Repeat the above steps.

5.16 Leaving the MRPM System. Press F9 SAVE or F10 EXIT key until the "system" prompt appears; then turn off your computer power switches.

5.17 Modeling a Facility for the MRPM System. A model of a facility can be constructed by using the as-built drawings and the actual facility. The procedure is to do a component quantity takeoff for all components in the facility. Appendix D lists the components in the MRPM system. The forms shown in Appendix E should be used to record the component data.

When the complete facility has been finished, the data can be entered directly into MRPM or into any spreadsheet program in the following format:

Column 1: CACES Number (nine characters) left justified.

Column 2: Quantity (nine digits) with decimal point (i.e. 1., 259.).

Column 3: Description (not used by MRPM).

5.18 Procedure To Split a Facility Group Into Individual Facilities, Dwelling Type, and Individual Dwelling Unit.

5.18.1 Facility Group to Individual Facility - Start with the facility group (e.g., Facility ID: 32 or G00032). Copy the current facility group to a new single facility as follows:

1. Select "Copy Facility" from the "Facility Information Selection Menu."

Enter:

Starting New Facility ID:	P00032
Ending New Facility ID:	(blank)
Model Facility ID:	(32 or G00032)
Place in Directory:	(02, 09, 52, etc.)

Press F6 to begin the copy function.

2. Select "General Information."

Find (F3) the new facility (P00032) and make all appropriate changes to the data and save (F9).

3. If removing only one facility from the group, find (F3) the facility group and reduce the "Number in F/G" by one.

5.18.2 Individual Facility to Dwelling Type.

1. Start with an individual facility (e.g., P00032). Copy the current facility to a dwelling unit (U00032) as follows:

- a. Select "Copy Facility" from the "Facility Information Selection Menu."

Enter:

Starting New Facility ID:	U00032
Ending New Facility ID:	(blank)
Model Facility ID:	(P00032)
Place in Directory:	(02, 09, 52, etc.)

Press F6 to begin the copy function.

- b. Edit the "General Information" for this dwelling unit if required.
2. Divide the dwelling unit current component quantities by the number of dwelling units as follows:
 - a. Select "Fac Group to Dwelling Unit" from the "Facility Information Selection Menu."

Enter:

Facility ID: U00032

Divide Component Quantity By: (4 for a four-plex; 2 for a duplex, etc.).

Press F6 to begin the division process.

- b. List (F1) the component quantity and dates to check for correctness and modify if required.

5.18.3 Dwelling Type to Individual Dwelling Unit. Start with the basic dwelling type "U00032" and create individual units (apartments) (sequentially numbered P00081, 82, and 83; or individually) as follows:

1. Select "Copy Facility" from the "Facility Information Selection Menu."

Enter:

Starting New Facility ID:	P00081
Ending New Facility ID:	P00083
Model Facility ID:	U00032
Place in Directory:	(02, 09, 52, etc.)

Press F6 to begin the copy function. The system will create all three facilities.

2. Modify the "General Information" if required.

5.19 Procedure To Create a New Directory for Facility Storage. Every new directory (\01, \22, etc.) must contain one blank file named FACILITY.XDB. This file is provided on a diskette labeled "BLANK FACILITY.XDB". First create a new directory (E:\BLKFACIL) and copy the file as follows:

1. CD \
2. Enter key
3. MD \BLKFACIL
4. Enter key
5. CD \BLKFACIL
6. Enter key
7. Copy A:*. *
8. Enter key
9. CD \DATA
10. Enter key.

To create a new directory (e.g., \39), enter:

1. CD \
2. Enter key
3. MD \39
4. Enter key
5. CD \39
6. Enter key
7. Copy \BLKFACIL*.*
8. Enter key
9. CD \DATA
10. Enter key.

Move to the base directory (e.g., /DATA/Y1, X1, Z1) and add or copy facilities to new directory.

5.20 Download Data From IFS. Your basic facility information (facility description, F4C code, construction year, basic quantity) stored in HQ-IFS (or possibly your installation IFS) can be downloaded into the MRPM system. Two ASCII¹ files need to be created--one for buildings and one for nonbuildings. Enter the files by using the Model Facility from the IFS function.

¹ASCII = American Standard Code for Information Interchange.

6 LEARNING THE MRPM SYSTEM.

6.1 Introduction. This chapter presents the MRPM functions in the order that you will use most frequently. This presentation method allows you to learn just enough to do your job and then stop. You can come back at any time and learn the remaining functions. Bear in mind that with this learning method, you will not be exposed to the basic information tables until the end of the chapter. You may not fully understand some of the material used until you have completed the chapter.

This chapter guides you through the MRPM system and allows you to work systematically within each data screen.

1. Remove this chapter from your user's manual so that you can refer to the installation functions, Chapter 2, and this chapter simultaneously.

2. Read the text as follows:

(a) Read the function heading of a section in Chapter 6.

(b) Find the reference given to Chapter 2.

(c) Read the text in Chapter 2 first. This will describe how each data item is used.

(d) Read the text in Chapter 6 next. This text is presented in two parts. The first part presents a textual description of the work to be done during the learning exercise. The second part provides one way the work can be accomplished using the system. Each command is given in the commands section. You can enter the commands as given to learn how to operate the system.

(e) Try the commands to learn how the system works. The exact commands to perform each exercise are listed in the Commands section for each function.

Start the learning process by moving to the drive that contains the \DATA directory. From any DOS prompt type "INSTMENU" followed by the enter key. The Maintenance Resource Prediction Model Installation Selection menu will be displayed. The above commands are normally placed in the AUTOEXEC.BAT file so that the menu will automatically appear when the machine is turned on.

```

#####
      MAINTENANCE PREDICTION MODEL
      INSTALLATION SELECTION MENU
#####
      INSTALLATION NAME      BATCH CONTENTS
#####
DOS      CD E:\DATA\Y1
Enter Current Learn DataBase
Create a New Learn DataBase
      Primary Inst
#####
PAGE 1
#####
F1      F2      F3SETUP F4      F5 EDIT F6      F7      F8      F9      F10EXIT#

```

Figure 6-1. Maintenance Resource Prediction Model, Installation Selection Menu.

Use the down arrow key to move the cursor to "Create a New Learn Data Base" and press the enter key. The system will delete the current contents of the \DATA\LEARN directory and place new files in this directory. This process may take a few minutes. A message will be printed instructing you to type "MRPM" and press the enter key to start the MRPM system.

```

TYPE: MRPM (ENTER KEY) TO START MRPM SYSTEM
E:\DATA\LEARN
>mrpm

```

Figure 6-2. Starting the MRPM System.

The computer system will display the Main Menu. Notice that the current directory is always displayed at the lower left of the screen.

```

#####
Maintenance Prediction Model
Main Menu
#####

Basic Information
Facility Information
Review and Approval
Research
Special Programs

E:\DATA\LEARN
#####
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 6-3. MRPM Main Menu.

There are six functions shown in this menu. Ninety percent of your time will be spent in the "FACILITY INFORMATION" function. Use your down arrow to move to the facility information option and press the enter key.

During this training session, you will use real-life facilities exactly as you will find them in your daily work. The amount of data in the examples has been kept to a minimum to reduce your time for learning the system.

Example for Adding a New Facility. Assume you are in the year 1986. You are going to model facilities that were built in 1901.

Ten identical family housing facilities were built on your installation from the same drawings. One of the 10 identical single family houses has been assigned building number P08901. An engineer has reviewed the drawings and prepared a Component Quantity Takeoff identifying all walls, floors, etc., and stating the amount of each present in the facility. Master Planning has been provided all of the information required to define this new facility in the MRPM system. During this learning session, you will use portions of this facility to learn how the MRPM system works.

On the normal installation, there would probably be 10 new facilities and 10 new facility models added each year. The total time to add the 10 facilities would be approximately 5 hours per year.

6.2 Facility Information.

6.2.1 Facility Information Selection Menu (Read Section 2.3.1).

```

#####
          #####
          Facility Information
          Selection Menu
          #####
#####

Resource Calculation
Display Resources
Facility Component Quantity
General Information
Facility Reports
Query
Model Facility
Copy Facility
Global Change to Components
Fac Group to Dwelling Unit
Delete Resource Files
Move Facility to New Directory
Delete Resource Total File

E:\DATA\LEARN
#####
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 6-4. Facility Information Selection Menu.

6.2.2 General Information (Read Section 2.3.5). The first step in defining a facility is to add the basic or general information about it. This general information locates the facility on the installation (subinstallation, area, travel zone, facility number); provides basic information about the facility (F4C code, year of construction, floor area); identifies how work should be performed, how resources should be calculated, and who should pay for the work (work performance, special condition multiplier, facility funding projects, and calculation method).

Instead of requiring the user to type the full name of the subinstallation, area, or other field descriptions, a shortcut system of identifiers has been used to limit input to two characters. This does require you to have a list of all allowable IDs, but is a small price to pay for the ease of entering data.

Assume that the following information was prepared for you and that all IDs have been specified correctly.

ADD a new facility with the following information:

Facility ID: P08901

- | | |
|---------------------------------------|----------------------------------|
| 1. Subinstallation | [01] North Sector |
| 2. Area [01] Salerno Circle | |
| 3. Facility ID | [P08901] [Learn the MRPM System] |
| 4. F4C Code | [7112900] |
| 5. Number in F/G | [10] |
| 6. Travel Zone | [3] |
| 7. Square Feet | [2000] |
| 8. W/P Method Index | [1] (1:6) |
| 9. Special Condition | [01] Normal condition |
| | Multiplier ID |
| 10. Scheduled disposal date | [] |
| 11. Last Changed Date | [] |
| 12. Last Calculation Date | [] |
| 13. Facility Funding Profile | [01] Test |
| 14. Calculation Modeling Id | [1] (1:4) As entered |
| 15. Directory Specified | [] (Blanks if none) |
| 16. Components Entered | [] |
| 17. Base Facility ID | [] |
| 18. Percentage of Base Facility [] | |

From Main Menu:

- | | |
|---|--|
| 1. Use down arrow (↓) (to Facility Information) | 6. Type: P08901 |
| 2. Enter (Facility Information Selection Menu is displayed) | 7. Enter (computer adds the sequence number and requests a subinstallation ID) |
| 3. Press 3 (↓) to General Information | 8. Add all info enclosed in square bracket given above |
| 4. Enter (General Facility Information) | 9. Press F9 SAVE (to command mode) |
| 5. Press F7 ADD (to add a new facility) | 10. Press F10 EXIT (for facility information selection menu) |

```

#####
General Facility Information                                02-21-90
#####
Seq [1038] Command Mode
(1) Subinstallation [01] North Sector
(2) Area [01] SALERNO CIRCLE
(3) Facility ID[P08901 ] [LEARN THE MRPM SYSTEM ]
(4) F4C Code [7112900][FAM.HSG.CAPEHART CIV.GS 5 & 6 ]
(5) Number in F/G [ 10] (6) Travel Zone [ 3]
(7) Square Feet [ 2000] (8) Construction Year [1901]
(9) W/P Method Index [1] minor-inhouse,major-contract
(10) Special Cond. Mult.ID[01]Normal Conditions
(11) Scheduled disposal date [ ] [mm-dd-yy]
(12) Last Changed Date [02-21-90] [mm-dd-yy]
(13) Last Calculation Date [ ] [mm-dd-yy]
(14) Facility Funding Profile[01] test
(15) Calculation Modeling Id [1] (1:4) As Entered
(16) Directory Specified[E:\ ](blank for current directory)
(17) Components Entered (Y/N): [ ]
(18) Base Facility ID[ ]
(19) Percentage of Base Facility[ ]
#####
F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 MASK F7 ADD F8 DEL F9UPDATEF10EXIT

```

Figure 6-5. General Facility Information.

You have used several references or pointers to other tables. You will learn more about the tables later, but you may want to review each of the following tables in the basic information section in Chapter 2:

1. Subinstallation
2. Area
3. Travel zone
4. Work performance method
5. Special condition multiplier
6. Facility funding profile
7. Calculation model.

6.2.3 Model a Facility (Read Section 2.3.8.3)

You have just completed adding the general information about the facility. Now you want to add a description of what components are in the building. Only a few components need to be entered so you can learn the procedure.

You want to model a facility at your terminal.

ADD a new component model of the facility P08901 from your terminal using the following information given to you by your supervisor:

<u>Component</u>	<u>CACES No.</u>	<u>Quantity</u>	<u>Scheduled Date</u>	
			<u>Last</u>	<u>Next</u>
<u>Interior Walls</u>				
Plaster	0611100	2600	--	--
Sheetrock	0611300	1300	1936	--
Tile	0612800	1090	--	1990
<u>Interior Doors</u>				
Hollow - Core	0533100	18	--	--

Commands. From the Facility Information Selection Menu:

1. Press (↓) six times (to Model Facility)
2. Enter (for Installation-Level Model Facility).
3. Press (↓) twice to At Terminal
4. Enter (for Facility Component Quantity).
5. Type: P08901 (Facility ID)
6. Enter (for Facility Component Quantity and Dates. Message Appears. (See Figure 6-8)
7. Enter (system now in the ADD mode.
8. Type: 0611100 (CACES No.)
9. Enter (system displays level)
10. Type: 2600 (quantity)
11. Enter
12. Press F9 SAVE
13. Type: 0611300 (CACES No.)
14. Enter
15. Type: 1300 (Quantity)
16. Enter
17. Type: 1936 (last performed date)
18. Press F9 SAVE
19. Type: 0612800 (CACES No.)
20. Enter
21. Type: 1090 (Quantity)
22. Enter
23. Enter
24. Type: 1990 (Next/Sched Date)
25. Press F9 SAVE
26. Now ADD the Interior Doors
27. Press F9 SAVE
28. Press F10 EXIT (to Command Mode)
29. From COMMAND MODE: Press F10 Exit (to the Facility Component Quantity)
30. Press F10 EXIT (to Installation-Level Model Facility)
31. Press F10 EXIT (to the Facility Information Selection Menu).

```

#####
      Installation Level
      Model Facility
#####

      From IFS Database
      From Input File
      At Terminal
      Input from EMS

#####
E:\DATA\LEARN
#####
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 6-6. Installation Level Model Facility

```

#####
      FACILITY COMPONENT QUANTITY
#####
      FACILITY ID:  P08901
#####
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 6-7. Facility Component Quantity.

02/21/90

Figure 6-8. Status Message.

Figure 6-9. Facility Component, Quantity and Dates.

6.2.4 Resource Calculation (Read Section 2.3.2). You have been asked to develop a 10-year resource requirement report for this set of 10 facilities. This report will be the basis for your installation's planning submittal to your MACOM. You have been given the following instructions.

(1) Perform a resource calculation for the years 1986 through 1995 using all adjustment factors of 1.0 (the above values have been previously set for you through the Basic Information, Report Period screen).

(2) Set run parameters:

- (a) Modeling Method: (5) Use the item specified for facility
- (b) Calculation Method: (3) All tasks
- (c) Task Distribution Method: (2) Uniform
- (d) Facility Selection: (2) Facility number range
- (e) Subdirectory Usage: (1) Use main directory; no tape; save files.
- (f) Fac. Type To Be Processed: (1) Building and nonbuilding.
- (g) Trace Option: (1) Set trace off.
- (h) Set the facility selection range to P08901, P08901. Accept the values and start the calculation.

Commands. From Facility Information Menu:

- | | |
|---|--|
| 1. Enter (for resource calculation) | 10. Down arrow (↓) (to set ranges) |
| 2. Enter (to set run parameters) | 11. Enter (for facility) |
| 3. Press space bar four times to method (5) | 12. Type: P08901 (use space bar to blank out "0") |
| 4. Down arrow (↓) (to calculation methods and elect (3.all tasks) | 13. Enter |
| 5. Down arrow (↓) (to task distribution method) | 14. Press (F10) (to set ranges) |
| 6. Space bar for uniform (2) | 15. Down arrow (↓) (to accept values and start run) |
| 7. Use down arrow (↓) (for facility election. | 16. Enter (to start calculation. Facility No. displayed) |
| 8. Space bar to facility number range (2. | 17. Press F10 (for Facility Information Selection menu). |
| 9. Press F10 (to set run parameters) | |

Review the printed output received and shown in Figure 6-12. The first line gives the program name and revision number. The second line gives the date and time. The third line states the letter of the virtual disk (F). If no virtual disk is present, the letter (C) will be shown. The third line shows the date and time. The fourth line shows the current directory. The next several lines contain the values that you selected on the input screen. The next to last line shows the starting time for calculations for facility P08901. If your facility contained components that were not in the data base, error messages would be printed on this report.

```

##### Resource Calculation #####
□ #####f
□ 02-21-90 Revision #7.01 08:39:21 □
□ Installation: Learning the MRPM System Demo □
□ Report Period Years: 1986 - 1995 □
□ M.L.A.=1.000 ,M.T.A.=1.000 RMF T.A.=1.000 C.A.=1.000 □
□ #####
□ #####f
□ Set Run Parameters □
□ Set Ranges □
□ Not Used □
□ Accept Values & Start Run □
□ #####
□ #####f
□ MODELING METHOD [5]Use the item specified for Facility □
□ CALCULATION METHOD [3]All Tasks □
□ TASK DISTRIBUTION METHOD [2]Uniform □
□ FACILITY SELECTION [2]Facility Number Range □
□ SUBDIRECTORY USAGE [1]Use main directory ;No Tape;Save Files □
□ FAC. TYPE TO BE PROCESSED [1]Building and Non-Building □
□ Trace Option [1]Set Trace Off □
□ Facility:P08901 -P08901 □
□ #####
#####f
Use keys to position to selection & hit ENTER | hit F10 to exit program

```

Figure 6-10. Resource Calculation.

```

#####f
□ Current Directory □
□ F4C Code = 7112900 □
□ Facility ID = P08901 □
□ Calculating □
#####f

```

Figure 6-11. Resource Calculation Processing Screen.


```

Turn on the Printer | Press F10 to stop after this facility is calculated

Program: FA-CALC.EXE Revision number: 7.01
Calculation Messages 02-21-90 08:39:20
Assigned Virtual Disk is : F:
Current Directory E:\DATA\LEARN

MODELING METHOD          Use the item specified for Facility
CALCULATION METHOD       All Tasks
TASK DISTRIBUTION METHOD Uniform
FACILITY SELECTION      Facility Number Range
                        Facility Range : P08901 - P08901
SUBDIRECTORY USAGE      Use main directory ;No Tape;Save Files
FAC. TYPE TO BE PROCESSED Building and Non-Building
08:43:31 * Start Facility ID: P08901 FAC Code : 7112900 Sequence #:1038
***** END OF FACILITY RANGE *****

```

Figure 6-12. Resource Calculation Output.

6.2.5 Display Resources (Read Section 2.3.3.1). You want to graph the total cost (line 8) for Interior Construction CACES No. 0500000. Look at the resources in both tabular and graphic form. Which display would you like to see--the table or the graph?

Command. From Facility Information Menu:

- | | |
|--|-------------------------------|
| 1. Down arrow (↓) (to Display Resources) | 11. Enter (a Microsoft Chart |
| 2. Enter (for Display Resources | Screen will be displayed |
| Selection Menu) | before the graph appears) |
| 3. Enter (for Display Facility | 12. Type: p (for print) |
| Resources) | 13. Type: p (for printer. The |
| 4. Type: P08901 | graph will be printed.) |
| 5. Enter (shows the total | 14. Type: q (for quit) |
| resources CACES No. 0000000) | 15. Type: y (to confirm) |
| 6. Press F3 FIND | 16. Press F10 (to Resource |
| 7. Type: 0500000 | Summary Graph) |
| 8. Enter (table displayed) | 17. Press F10 (to Display |
| 9. Type: G (for graph) | Resources Selection Menu) |
| 10. Type: 7 (for total cost | 18. Press F10 (for Facility |
| to be graphed) | Information Menu). |

Resource Summary File Query Program

CACES NO: 0000000 TOTAL SUMMARIES

FACILITY ID: P08901 Total ten years cost: 219754

Year	1986	1987	1988	1989	1990
1 Occ Count	83	83	60	56	83
2 Lab Hours	1711	288	1687	167	1711
3 Eqp Hours	1711	288	1687	167	1711
4 Lab Costs	27045	4734	26657	2766	27045
5 Mat Costs	4205	2893	2250	790	4205
6 Eqp Costs	5476	924	5400	535	5476
7 Tot Costs	36727	8551	34307	4093	36727

Year	1991	1992	1993	1994	1995
1 Occ Count	80	84	118	118	82
2 Lab Hours	206	1695	290	1712	280
3 Eqp Hours	206	1695	290	1712	280
4 Lab Costs	3403	26809	4777	27088	4619
5 Mat Costs	2668	4186	3750	5062	3592
6 Eqp Costs	660	5426	928	5480	898
7 Tot Costs	6732	36421	9455	37631	9110

Command Mode

F1=TOP F2=BOT F3=FIND PgUp=PREV PgDn=NEXT F5=GRAPH F10=EXIT

Figure 6-15. Resource Summary File

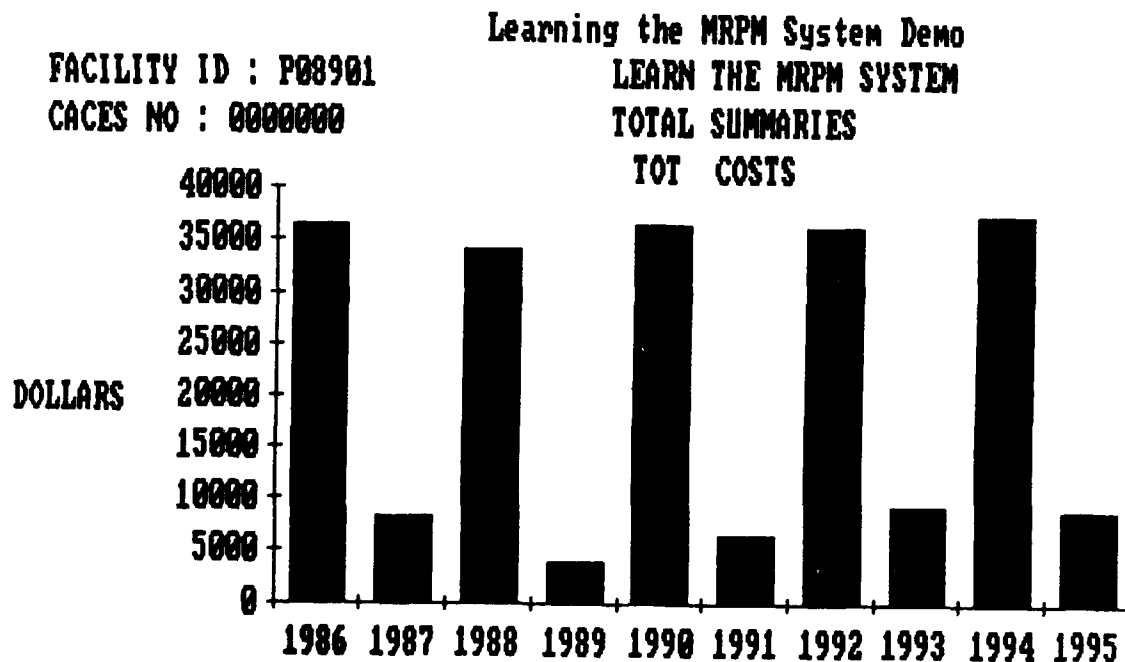


Figure 6-16. Resource Summary Graph.

6.2.6 Component Quantity and Dates (Read Section 2.3.4). Time passes and you have performed work on your P08901 facility. You have even done some future planning! EDIT the table for P08901 and change the information for all facilities.

Schedule Dates

<u>CACES No.</u>	<u>Quantity</u>	<u>Last</u>	<u>Next</u>
0611100	(No Change)	(No Change)	1992
0611300	1500.0	1986	1993

Commands. From Facility Information Selection Menu:

1. Down arrow (↓) twice to Facility Component Quantity
2. Enter (for Facility Component Quantity)
3. Type: P08901
4. Enter (for Facility Component, Quantity, and Dates)
5. Press F3 FIND
6. Type: 0611100
7. Enter (shows complete record)
8. Press F5 EDIT
9. Enter twice (to next scheduled date)
10. Type: 1992
11. Press F9 SAVE (for command mode)
12. Press F3 FIND
13. Type: 0611300
14. Enter (shows complete record)
15. Press F5 EDIT
16. Type: 1500.0 (space bar twice--quantity change)
17. Enter (for last performed date)
18. Type: 1986
19. Enter
20. Type: 1993
21. Press F9 SAVE (for command mode)
22. Press F10 (for Facility Component Quantity)
23. Press F10 (for facility information menu..)

```

                                FACILITY COMPONENT, QUNATITY, AND DATES          02/21/90
Facility ID: [P08901 ] LEARN THE MRPM SYSTEM
                LEVEL 1 0000000 TOTAL SUMMARIES
                LEVEL 2 0600000 INTERIOR FINISHES
                LEVEL 3 0610000 WALL FINISHES
                LEVEL 4 0611000 GYPSUM & PLASTER PRODUCTS
                LEVEL 5 0611100 PLASTER WALL FINISH

COMMAND MODE
CASES NO. QUANTITY U/M DESCRIPTION DATE LAST PERFORMED DATE NEXT SCHEDULED

0611100 2600.0 2 PLASTER WALL FINISH 0 0

NOTES: PLASTER WALL FINISH

```

F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 DATE F7 ADD F8 DEL F9 F10EXIT

Figure 6-17. Facility Component 0611100.

```

                                FACILITY COMPONENT, QUNATITY, AND DATES          02/21/90
Facility ID: [P08901 ] LEARN THE MRPM SYSTEM
                LEVEL 1 0000000 TOTAL SUMMARIES
                LEVEL 2 0600000 INTERIOR FINISHES
                LEVEL 3 0610000 WALL FINISHES
                LEVEL 4 0611000 GYPSUM & PLASTER PRODUCTS
                LEVEL 5 0611300 SHEETROCK (UNSTIPPLED) WALL FIN.

COMMAND MODE
CASES NO. QUANTITY U/M DESCRIPTION DATE LAST PERFORMED DATE NEXT SCHEDULED

0611300 1300.0 2 SHEETROCK (UNSTIPPLED) WALL FIN. 1936 U 0

NOTES: SHEETROCK (UNSTIPPLED) WALL FIN.

```

F1 TOP F2 BOT F3 FIND F4 LIST F5 EDIT F6 DATE F7 ADD F8 DEL F9 F10EXIT

Figure 6-18. Facility Component 0611300.

Note that as you entered and saved a date, the computer marked the date with a "U" to indicate that it was set by the user.

6.2.7 Reports. Generate one of each report type to see what reports are available.

6.2.7.1 Organizational Summary Reports (Read Section 2.3.6.1) .

F4C Summary Report. Use an F4C range of low 6101100 and high 6101100, starting year 1986, report years of 10, print the resource summary information for all facilities, and use thousands of dollars.

Commands. From the Facility Information Selection Menu:

- | | |
|--|---|
| 1. Down Arrow (↓) four times (to Facility Reports) | 10. Include all facilities by press the Enter Key twice |
| 2. Enter (for Facility Reports) | 11. Type: 1986 (starting year) |
| 3. Enter (for F4C/AMS Organizational Summary) | 12. Enter |
| 4. Space bar once and the F4C Summary Report will be | 13. Type: 10 (number of years to report) |
| 5. Press the enter key (See Figure 6-19.) | 14. (enter) |
| 6. Type: 6101100 (low F4C) | 15. Type: 2 (K Unit) |
| 7. Enter | 17. Press F6 (to begin report) |
| 8. Type: 6101100 (high F4C) | 18. Press F10 (for Facility Reports). |
| 9. Enter | |

```

=====
      AMS/F4C Summary Report
      Input Screen
=====
      F4C Summary Report [toggle space bar to change]
Enter the low F4C Code: 6101100
Enter the high F4C Code: 6101100

Enter the low Facility ID:      (Enter blanks to
Enter the high Facility ID:    print all facilities)

Enter the starting year: 1986
Enter the number of years to report: 10 (max 10)

Print Option: 2
(1) Actual Unit
(2) K Unit
=====
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-19. F4C Input Screen.

Review the output report (also shown on pages C-1 though C-5). The first two pages contain four AREA reports (01, 02, 03, 04). The third page contains two subinstallation reports. Subinstallation 01 contains areas 01 and 02. Subinstallation 02 contains areas 03 and 04. Page four is an installation summary of subinstallations 01 and 02.

AMS Summary Report. Use an AMS code of K2600, starting year 1986, 10 report years, and include all facilities. Print the report in thousands of dollars.

Commands. From the AMS/F4C Summary Report Input Screen:

1. Press the enter key (to include all facilities).(See Figure 6-20.)
2. Type: K2600
3. Enter
4. Type: K2600
5. Enter
6. Press the enter key twice
7. Accept 1986 and press enter.
8. Accept 10 years and press enter.
9. Accept 2 for K units and press enter.
10. Press F6

```

#####
          AMS/F4C Summary Report
          Input Screen
#####
          AMS Summary Report [toggle space bar to change]
          Enter the low AMS Code: K2600
          Enter the high AMS Code: K2600

          Enter the low Facility ID: (Enter blanks to
          Enter the high Facility ID: print all facilities)

          Enter the starting year: 1986
          Enter the number of years to report: 10 (max 10)

          Print Option: 2
                      (1) Actual Unit
                      (2) K Unit
#####
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-20. AMS Input Screen.

Review the output report (also shown on pages C-5 through C-8). The report is the same as the F4C report described above.

6.2.7.2 Task Cost Report (Read Section 2.3.6.2). Produce a report for P08901 that shows estimates for all tasks for each of the 10 years.

Commands. From the Facility Reports Menu:

1. Down Arrow(↓) (to Task Cost Report)
2. Enter
3. Type: P08901 (the facility ID)
4. Enter (the system will print the report and return you to Facility Reports Selection Menu)

Review the output report (also shown on pages C-9 and C-10). Tasks (0611102,3,4,5 and 6) are combined to form component costs for plaster walls (0611100). Gypsum and plaster products (0611000)

and masonry and tile products (0612000) are combined to form wall finishes (0610000). Interior Construction (0500000) and Interior Finishes (0600000) are combined to form the total resource for the facility (0000000).

6.2.7.3 Facility Component, Quantity, and Dates Report (Read Section 2.3.6.3). Use your P08901 facility and produce a report.

Review the report (also shown on page C-11). Note that the computer has assumed values.

Commands. From the Facility Reports Menu:

1. Down arrow (↓) to Facility Component/Quantity)
2. Enter
3. Type: P08901 (your facility ID)
4. Enter (the system will print your report and return you to Facility Reports).

6.2.7.4 Ordered Yearly Task Report (Read Section 2.3.6.4). Use your P08901 facility. Select "yearly by facility ID." Produce component and task report for 1986, request only one year (1986). Print all tasks for which the dollar values are greater than 2 percent of the total yearly expenditure by entering a "2" for the lower percent cutoff.

Commands. From the Facility Reports Menu:

- | | |
|---|---|
| 1. Down arrow (↓) to Ordered Yearly Task Reports) | 8. Type: P08901 (low facility ID) |
| 2. Enter (for ordered task report generator) | 9. Enter |
| 3. Enter (for yearly by facility ID) | 10. Enter |
| 4. Type: 1986 (starting year) | 11. Type: 2 (percent) |
| 5. Enter | 12. Enter |
| 6. Type: 1 (number of years) | 13. Type: 3 (by component and tasks) |
| 7. Enter | 14. Enter |
| | 15. Press F6 BEGIN (system will print the report) |
| | 16. Press F10 (returns you to Facility Reports Selection Menu). |


```

=====
ORDERED TASK REPORT GENERATOR
=====

PLEASE SELECT THE TYPE OF REPORT

YEARLY BY FACILITY ID
YEARLY BY F4C CODE
YEARLY BY FUNDING REPORT
PERIOD BY FACILITY ID
PERIOD BY F4C CODE
PERIOD BY FUNDING REPORT
=====
F1      F2      F3      F4      F5      F6      F7      F8      F9      F10EXIT

```

Figure 6-21. Ordered Task Report Generator

```

=====
YEARLY BY FACILITY ID
=====

STARTING YEAR .....(YYYY) ==> 1986
NUMBER OF YEARS ..(MAX 10) ==> 1
LOW FACILITY ID .....(9X) ==> P08901
HIGH FACILITY ID .....(9X) ==> P08901
LOWER PERCENT CUTOFF ..(nn) ==> 2
TASK REPORT OPTIONS ....(n) ==> 3
(1.BY COMPONENT 2.BY TASK 3.BY COMPONENT & TASK)
=====
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-22. Yearly by Facility ID

The system will produce two reports (also shown on pages C-12 and C-13). The first shows the components for which costs are greater than 2 percent. The second shows the individual tasks for which costs are greater than 2 percent.

6.2.7.5 Funding Report (Read Section 2.3.6.5). The first step is to generate a special report file for RPMA appropriation (01)/K2600 Administrative facilities AMS Code (07). The second step is to print

the report for this appropriation/AMS code. Generate a report starting with 1986 for 10 years.

Commands. Generate Report

From the Facility Reports Menu:

1. Down arrow (↓) four times (to Funding Report)
2. Enter (Options Screen) See Figure 6-23.
3. Type: 2
4. Enter (to Approp. Code Table)
5. Press F6 BEGIN (to Approp. Code Table)
6. Press F6 (for RPMA-1 approp. ID: 01) See Figure 6-24.
7. Use page down (↓) and F6 (to select AMS Code K2600, AMS ID: 69) See Figure 6-25.
8. Type: 1986 (starting year) See Figure 6-26.
9. Enter
10. Type: 10 (number of years)
11. Enter
12. Enter (include all facilities)
13. Press F6 (to start the report)
14. Type: Y (to delete existing RS010107 file)
15. Enter
16. Type: Y (to delete existing RS020107 file)
17. Enter

18. Type: Y (to delete existing R0Z10107 file)
19. Enter (to generate a printed report)

The computer will take several minutes to generate the report file. During this processing, the computer will display the facility ID or subdirectory being processed as shown in Figure 6-27.

Print Report

20. Type: Y (to print report)
21. Enter (for Funding Report print information) See Figure 6-27
22. Enter (accept 01 as APR ID)
23. Enter (accept 69 as AMS ID)
24. Type: I (for installation)
25. Enter
26. Type: Z1
27. Enter (for Z1 installation ID)
28. Press F6 (next screen)
29. Enter (for 1986)
30. Enter (for 10)
31. Press F6 (next screen)
32. Type: 1 (total plus components)
33. Enter
34. Press F6 (Generate the report)
35. Press F10 (for Facility Reports).

A report is printed listing estimated labor, material, and equipment costs for each component for each year.

```

                                     *****
                                     FUNDING REPORT
                                     *****
*****
OPTIONS:
1 - GENERATE REPORT FILE FROM STANDARD APR/AMS COMBINATIONS
2 - GENERATE REPORT FILE FROM SPECIFIC APR/AMS COMBINATIONS
3 - PRINT OUT AN EXISTING REPORT FILE
ENTER OPTION (1,2,OR 3) :      2
*****
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-23. Funding Report Options

```

                                     APPROPRIATION CODE TABLE
*****
APR ID# APR CODE #      APR DESCRIPTION
01  RPMA 1      Real Property Maintenance Account-1
02  RPMA 2      Real Property maintenance Account-2
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
*****
USE CURSOR AND PAGING CONTROLS TO CHOOSE APR ID FOR REPORT
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-24. Appropriation Code Table.

```

AMS FUNCTIONAL GROUP CODES
=====
AMS ID  AMS CODE #  AMS DESCRIPTION
=====
61  K19XX  ALL OTHERS
62  K2000  BUILDINGS
63  K2100  TRAINING
64  K2200  MAINTENANCE & PRODUCTION
65  K2300  RESEARCH, DEVELOPMENT & TEST
66  K2410  AMMUNITION STORAGE
67  K2420  OTHER COVERED STORAGE
68  K2500  HOSPITAL & MEDICAL
69  K2600  ADMINISTRATION
70  K2700  BACHELOR HOUSING
71  K2800  COMMUNITY
72  K2910  FAMILY HOUSING
=====
USE CURSOR AND PAGING CONTROLS TO CHOOSE AMS ID FOR REPORT

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-25. AMS Functional Group Codes.

```

=====
MAINTENANCE RESOURCE PREDICTION REPORTS
=====

=====
REQUESTED REPORT IS AS FOLLOWS:
=====
ORG CODE = Z1
APPROP ID = 01
AMS ID = 69
=====

PLEASE ENTER ADDITIONAL INFORMATION
ENTER THE STARTING YEAR FOR THE REPORT : 1986
ENTER THE NUMBER OF YEARS TO REPORT (10 MAX) : 10
ENTER STARTING FACILITY ID (BLANKS IF ALL) :
ENTER END FACILITY ID (BLANKS IF SAME AS START) :
=====
RSMY FILE RS010169.XDB ALREADY EXISTS
IS IT OK TO DELETE FILE AND CONTINUE (Y or N)? Y

F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-26. Maintenance Resource Prediction Reports.

```

                *****
                MAINTENANCE RESOURCE PREDICTION REPORTS
                *****

*****
REQUESTED REPORT IS AS FOLLOWS:
*
* *****
*   ORG CODE = Z1
*   APPROP ID = 01
*   AMS ID   = 69
*   *****
*   FACILITY ID: 33
*
* PLEASE ENTER ADDITIONAL INFORMATION
*
* ENTER THE STARTING YEAR FOR THE REPORT      : 1986
* ENTER THE NUMBER OF YEARS TO REPORT (10 MAX) : 10
* ENTER STARTING FACILITY ID (BLANKS IF ALL)   :
* ENTER END FACILITY ID (BLANKS IF SAME AS START) :
*****
REPORT GENERATED FOR SUBINSTAL 01 ; RSMY FILE = RS010169.XDB
PLEASE WAIT WHILE REPORTS ARE GENERATED

```

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

Figure 6-27. Processing Screen.

```

                *****
                FUNDING REPORT PRINT INFORMATION
                *****

*****
*   ENTER THE APR ID NO.      : 01
*   ENTER THE AMS ID NO.     : 69
*   ENTER "I" FOR INSTAL OR "S" FOR SUBINSTAL : I
*   ENTER THE SUB INSTAL OR INSTAL ID      : Z1
*****

```

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

Figure 6-28. Funding Report Print Information

```

*****
* MAINTENANCE RESOURCE PREDICTION REPORTS *
*****

*****
* REQUEST PRINTED REPORT IS AS FOLLOWS: *
*
* *****
*   * ORG CODE = Z1 *
*   * APPROP ID = 01 *
*   * AMS ID = 69 *
*   * SUB INST OR INSTAL = Z1 *
* *****
* PLEASE ENTER ADDITIONAL INFORMATION
*
* ENTER THE STARTING YEAR FOR THE REPORT : 1986
* ENTER THE NUMBER OF YEARS TO REPORT (10 MAX) : 10
*****
PRINT OPTIONS:
1 - TOTAL PLUS Systems
2 - ALL
CHOOSE 1 OR 2 : 1

F1 F2 F3 F4 F5 F6 BEGIN F7 F8 F9 F10 EXIT

```

Figure 6-29. Maintenance Resource Prediction Reports.

A report is printed listing estimated labor, material, and equipment costs for each system for each year and is also shown on page C-14 through C-16.

Display Data. From the Facility Report Menu:

- | | |
|--|--|
| 1. Press F10 (to Facility Information Selection Menu) | 13. F6 (system will display totals. Use page up and page down to see data) |
| 2. Down arrow (↓) (to Display Resources) | 14. F1 (to Total Resources) |
| 3. Enter key | 15. Type: G |
| 4. Down arrow (↓) (to Display - Financial Data) | 16. Type: 7 |
| 5. Enter key (to Review and Approval Display or Graph) | 17. Enter key (system will show several screens and display the graph) |
| 6. Type: Z1 | 18. Type: P (for print) |
| 7. Enter key | 19. Type: P (for printer) |
| 8. Type: 01 | 20. Type: Q (for quit) |
| 9. Enter key | 21. Type: Y (for Yes if requested) |
| 10. Type: 69 | 22. F10 (for Display Resources) |
| 11. Enter key | 23. F10 (for Facility Information) |
| 12. Enter key (to use BF table) | 24. arrow (↓) (to Facility Reports) |
| | 25. key |

```

#####
  REVIEW AND APPROVAL
  DISPLAY OR GRAPH
#####

```

```

#####
  ENTER ORGANIZATION ID:  Z1
  ENTER APR ID           : 01
  ENTER AMS ID           : 69
  ENTER TREE ID          : BF
#####

```

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

Figure 6-30. Review and Approval, Display or Graph.

Installation : Z1		Fort(Prepared As Requested)				Costs in Thousands of Dollars
Appropriation : 01		Real Property Maintenance Account-1				
AMS : 69		ADMINISTRATION				
CACES NO: 0000000		TOTAL SUMMARIES				
Year	1986	1987	1988	1989	1990	
1 Occ Count	452	466	476	460	479	
2 Lab Hours	295	386	624	501	964	
3 Eqp Hours	295	386	624	501	964	
4 Lab Costs	4	6	9	8	16	
5 Mat Costs	2	2	16	5	31	
6 Eqp Costs	0	1	1	1	3	
7 Tot Costs	8	10	28	15	51	

Year	1991	1992	1993	1994	1995	
1 Occ Count	470	478	480	489	491	
2 Lab Hours	329	308	728	568	590	
3 Eqp Hours	329	308	728	568	590	
4 Lab Costs	5	5	13	9	10	
5 Mat Costs	2	3	9	7	4	
6 Eqp Costs	1	1	2	2	2	
7 Tot Costs	8	9	25	19	16	

Command Mode

F1=TOP F2=BOT F3=FIND PgUp=PREV PgDn=NEXT G=GRAPH F10=EXIT

Figure 6-31. Review and approval, Display.

Learning the MRPM System Demo
Real Property Maintenance Account-ADMINISTRATION
CACES NO: 0000000

TOTAL SUMMARIES
TOTAL COSTS

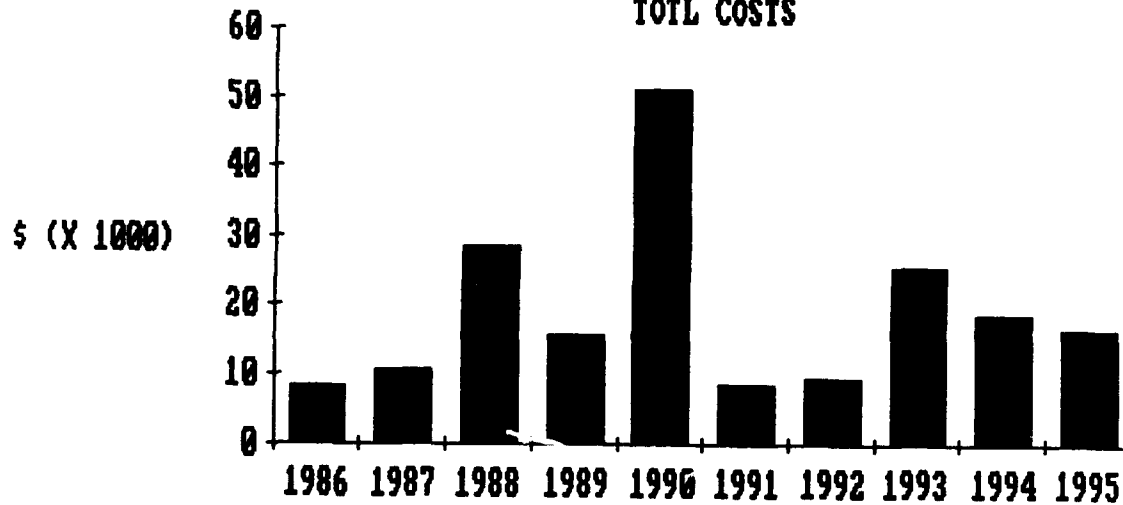


Figure 6-32. Review and Approval, Graph.

6.2.7.6 Resource Summary Report (Read Section 2.3.6.6) . Produce a report for P08901 starting in 1986 for 10 years.

Commands. From the Facility Reports Menu:

- | | |
|--|--|
| 1. Down arrow (↓) five times (to Resource Summary) | 8. Enter key |
| 2. Enter key (for input screen) | 9. Type: 1986 |
| 3. Type: 1 (for facility ID order) | 10. Enter key |
| 4. Enter key | 11. Type: 10 |
| 5. Press F6 | 12. Enter key |
| 6. Type: P08901 | 13. Press F6 (system will print the report and return you to the Resource Summary) |
| 7. Enter key | 14. Press F10 (for Facility Reports Screen). |


```

RESOURCE SUMMARY REPORT
=====
          GENERATE REPORT BY
          1) THE FACILITY ID ORDER
          2) THE F4C CODE ORDER
=====

          CHOOSE OPTION 1 OR 2 : 1

=====
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-33. Resource Summary Report.

```

INPUT SCREEN
ENTER LOW FACILITY ID : P08901
ENTER HIGH FACILITY ID : P08901

THE STARTING YEAR : 1986
ENTER NUMBER OF YEARS TO REPORT(MAX 10): 10

=====
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT

```

Figure 6-34. Resource Summary Report - Input Screen.

6.2.7.7 Total Facility Resource Report (Read Section 2.3.6.7) . Produce a report of total resources for all housing facilities (7000000 - 7999999) starting in 1986 for 10 years.

1. Use (↓) (to Facility Total Report)
2. Enter (for input screen)
3. Type: 2 (for F4C range)
4. Enter (for input screen)
5. Press F6
6. Type: 7000000 (low F4C)
7. Enter
8. Type: 7999999 (high F4C)
9. Enter
10. Type: 1986
11. Enter
12. Type: 10
13. Enter
14. Press F6 (input screen)
15. Type: D (for dollars)
16. Enter
17. Type: 1 (for individual facilities)
18. Enter
19. Type: 1 (for printer)
20. Enter
21. Type: 1 (for print with totals)
22. Enter
23. Press F6 BEGIN (report will be printed)
24. Press F10 (for Facility Reports Selection Menu)

```

=====
FACILITY TOTALS REPORT
=====
INPUT SCREEN

      1) ENTER THE FACILITY ID

      2) ENTER THE F4C CODE

=====

      CHOOSE OPTION 1 OR 2:  2

=====
F1      F2      F3      F4      F5      F6BEGIN F7      F8      F9      F10EXIT
=====

```

Figure 6-35. Facility Totals Report, Input

```

=====
FACILITY TOTALS REPORT
=====
INPUT SCREEN
ENTER LOW F4C CODE :7000000
ENTER HIGH F4C CODE :7999999
ENTER THE STARTING YEAR:1986
ENTER NUMBER OF YEARS TO REPORT(MAX 10): 10
=====

```

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

Figure 6-36. Facility Totals Report, F4C Input.

```

=====
FACILITY TOTALS REPORT
=====
INPUT SCREEN
PRINT IN DOLLARS(D),
OR THOUSANDS DOLLARS(T): D
REPORT CONTENTS : 1
1-INDIVIDUAL FACILITIES
2-INDIVIDUAL FACILITIES PER SQ. FOOT
3-3 DIGIT F4C SUMMARY
4-3 DIGIT F4C SUMMARY PER SQUARE FOOT
PRINT OPTIONS : 1
1-PRINTER
2-FILE NAMED:
3-PRINTER & FILE NAMED:
PRINT TOTAL OPTIONS : 1
1-PRINT WITH TOTALS
2-PRINT TOTALS ONLY
=====PRINT IN DOLLARS=====

```

F1 F2 F3 F4 F5 F6BEGIN F7 F8 F9 F10EXIT

Figure 6-37. Facility Totals Report, Contents.

The computer will produce one output page as shown on page C-20.

6.2.7.8 Combine Funding Reports - Produce a summary file containing all AMS codes for Appropriation ID:01.

Commands. From the Facility Reports Menu:

1. Down arrow (↓) eight times (to combine funding reports).
2. Enter (See Figure 6-38).
3. Select Appropriation ID 01 by pressing the enter key.
4. Press F6 to generate the file.
5. Press F10 (Facility Reports Menu).

```

Combine Funding Reports
Enter Appropriation ID : 01

Total file ROZ10100.XDB is being Generated
Combine file ROZ10169.XDB

```

Figure 6-38. Combine Funding Reports

You can use the Display - Financial data option and the print funding reports to view this file.

6.2.7.9 Trade Index Report - Generate a trade report for the carpentry shop (trade ID 01) for all administration facilities F4C: 60000000 through 69999999.

Commands. From the Facility Reports Menu:

1. Down arrow (↓) nine times
(to trade index report)
2. Enter
3. Type: 01 (for Trade ID)
4. Enter
5. Type: 60000000
6. Enter
7. Type: 69999999
8. Enter
9. F6 Begin

Commands. From the Facility Information Menu:

- | | |
|--|--|
| 1. Down arrow (↓) (to Copy Facility) | 13. Down arrow (↓) nine times (to Facility Group to Dwelling Unit) |
| 2. Enter | 14. Enter |
| 3. Type: D00001 (starting) | 15. Type: D00001 |
| 4. Enter | 16. Enter |
| 5. Enter (ending) | 17. Type: 8 |
| 6. Type: 01 (existing Facility ID) | 18. Enter |
| 7. Enter | 19. Press F6 (system will divide all quantities by 8) |
| 8. Enter (for current directory) | 20. Type: N |
| 9. Enter (for current directory) | 21. Enter (for Facility Information Selection Menu). |
| 10. Press F6 (begin) | |
| 11. Press F10 (to Facility Info Menu) | |
| 12. Move to General Information and change the number in facility group from 28 to 1 | |

6.2.10 Global Change to Components (Read Section 2.3.10)

Change the shingle roofing in Facility ID D0001 (CACES No. 0311350) to roll roofing (CACES No. 0311340) which was placed on the facility in 1987.

Commands

From the Facility Information Menu:

- | | |
|---|--|
| 1. Down arrow (↓) (to Global Change) | 9. Type: 0311340 (new for roll roofing) |
| 2. Enter | 10. Enter |
| 3. Type: D00001 | 11. Type: Y |
| 4. Enter | 12. Enter |
| 5. Type: D00001 | 13. Type: 1987 |
| 6. Enter | 14. Enter |
| 7. Type: 0311350 (current for shingles) | 15. Press F10 (for Facility Information Menu). |
| 8. Enter | |

6.2.11 Query (Read Section 2.3.7)

Answer the question "What administrative facilities (F4C 6101100) will require shingle roof replacement (CACES No. 0311357) in 1993." Print occurrences, labor hours, and total costs. Use the standard sort.

Commands

From the Facility Information Menu:

1. Down arrow (↓) (to Query)
2. Enter
3. Type: 6101100
4. Enter
5. Type: 6101100
6. Enter
7. Type: 0311357
8. Enter
9. Type: 1993
10. Enter
11. Type: 1993
12. Enter
13. Enter (method 1)
14. Page down (to next screen)
15. Down arrow (↓)
16. Type: Y (occurrences)
17. Type: Y (labor hours)
18. Down arrow (↓) (to total costs)
19. Type: Y
20. Page down (to next screen)
21. Press F6 (to generate report)
22. Press F10 (for Facility Information Menu).

6.3 Basic Information Selection Menu (Read Section 2.2).

6.3.1 General Information.

6.3.1.1 Organizational Chart (Read Section 2.2.1.1). This table is basically unchanging once you have added the installations that report under or through your installation and the directories containing your facility tables. Add a new organization no. (180), organization code (XX), description (Learn), and MACOM ID 00.

Commands. From the MRPM main menu:

1. Enter (for Basic Information Selection Menu)
2. Enter (for General Information Selection Menu)
3. Enter (for Organizational Chart)
4. Press F7 ADD
5. Type: 180
6. (TAB)
7. Type: XX
8. (TAB) (Inst. ID)
9. (TAB) (Org Description)
10. Type: Learn
11. TAB (MACOM ID)
12. Type: 00
13. Press F9 SAVE
14. Press F10 EXIT (to go back to General Information Selection Menu).

6.3.1.2 RMF Factors (Read Section 2.2.1.2) - This table would probably change once every 3 years when the Army would calculate and publishes a new set of RMF factors for your installation. Updates would be provided as a completely new file. For practice, FIND the AMS code for Family Housing, K2910. EDIT the default value to \$2.03. EDIT this record again and change the third year to \$5.03 and SAVE.

Commands From the General Information Menu:

1. Down arrow (↓) (to RMF Factors)
2. Enter (for RMF [HQUSACE] factor file)
3. Press F3 FIND
4. Type: K2910
5. Enter (find the AMS Code)
6. Press F4 EDIT
7. Down arrow (↓) twice
8. Type: 2.03 (default value)
9. Enter (system will change all years to 2.03)
10. Down arrow (↓) twice
11. Type: 5.03 (year 3)
12. Enter
13. Press F9 SAVE
14. Press F10 (to return to General Information Menu)

6.3.1.3 F4C Conversion Codes (Read Section 2.2.1.3) - This table would change very little and would require no updating of individual records. Updating would be provided as a completely new file.

Commands From the General Information Menu:

1. Down arrow (↓) (to F4C Conversion Codes)
2. Enter (for F4C to AMS Conversion Table)
3. Review table
4. Press F10 (for General Information Menu).

6.3.1.4 Report Periods (Read Section 2.2.1.4) - The report dates in this table would be changed once a year. For practice only, EDIT this table and set the beginning report period year to 1987, the ending report period year to 1996. Look up the correct material adjustment factor for your general area in Table 2-2, but enter 1.0 for this example. Change the organizational code to code Z1. Change the number of lines on a printed page to 66. Enter "F" for the virtual drive letter.

Commands. From the General Information Menu:

1. Down arrow (↓) (to Report Periods)
2. Enter (for Report Period Data)
3. Press F5 EDIT
4. Down arrow (↓) (Advance rpt period 1 yr)
5. Type: Y
6. Enter (system automatically advance years by 1 year)
7. Type: 1.0 (material location adjustment)
8. Enter
9. Type: 1.0 (MTA)
10. Enter
11. Type: 1.0 (RMF TA)
12. Enter
13. Type: Z1 (org. ID)
14. Enter
15. Type: 66 (max. line per pg)
16. Enter
17. Type: F (virtual drive)
18. Press F10 (DO NOT SAVE)
19. Press F10 (for General Information Menu).

6.3.1.5 Unit Cost Factors (Read Section 2.2.1.5) - Unit cost by age factors are stored by facility group under an ID code such as AA. Use the function keys to review this data.

Commands. From the General Information Menu:

1. Down arrow (↓) (to Unit Cost Factors)
2. Enter (for Unit Cost Factors)
3. Use function keys
4. Press F10 (for General Information).

6.3.1.6 Directory Location (Read Section 2.2.1.6) - Review this table to see where directories are stored.

Commands. From the General Information Menu:

1. Down arrow (↓) (to Directory Location)
2. Enter
3. Use keys to move around
4. Press F10 (for General Information Menu)
5. Press F10 (for Basic Information Selection Menu).

6.3.2 Prediction Models.

6.3.2.1 Prediction Model Definition (Read Section 2.2.2.1). Your installation has just started to use new prediction models for railroads called RAILER and BRIDGER. EDIT and type RAILER as model number 5. ADD BRIDGER to the Prediction Model Definition Table as model number 6.

Commands. From the Basic Information Menu:

- | | |
|---|---|
| 1. Down arrow (↓) (to Prediction Models) | 7. Page Down (for MN5) |
| 2. Enter (for Prediction Model Menu) | 8. Press F5 EDIT |
| 3. Enter (for Prediction Model Definitions) | 9. Type: RAILER |
| 4. Page Down (for Model No. 2 [MN2]) | 10. Press F9 SAVE |
| 5. Page Down (for MN3) | 11. Page Down (for MN6) |
| 6. Page Down (for MN4) | 12. Press F5 EDIT |
| | 13. Type: BRIDGER |
| | 14. Press F9 |
| | 15. Press F10 (to move back to the model menu). |

6.3.2.2 F4C Prediction Models (Read Section 2.2.2.2) - The F4C code for railroads is 86010. FIND the F4C range containing 86010. EDIT and select RAILER (model number 5) as the CURRENT PREDICTION MODEL to be applied and SAVE. ADD RAILER (5) to the list of ALLOWABLE MODELS.

Commands. From the Prediction Models Menu:

1. Down arrow (↓) (to F4C Prediction Models)
2. Enter (for F4C Prediction Model Definitions)
3. Press F3
4. Type: 86010
5. Enter (system finds and displays information)
6. Press F5 EDIT
7. Down arrow (↓) (to Current Prediction Model)
8. Type: 5
9. Down arrow (↓) three times
10. Type: 5 (for RAILER)
11. Enter (system prints "RAILER")
12. Press F9 SAVE
13. Press F10 (for Prediction Model Menu).

6.3.2.3 Component Prediction Models (Read Section 2.2.2.3) - Your installation has just started to use a new prediction model for the bridge component (CACES Number 0200000) of railroads, BRIDGER (6). FIND the F4C range containing F4C 86030 CACES Number 0200000. EDIT to select BRIDGER as the current model and add BRIDGER to the allowable models, and select as the current prediction model.

Commands. From Prediction Model Menu:

1. Down arrow (↓) (to Component Prediction Models)
2. Enter (for Component Prediction Models Definitions)
3. Press F3 FIND
4. Type: 86030 (F4C code)
5. Enter
6. Type: 0200000 (CACES No.)
7. Press F3 (system displays correct record)
8. Press F5 EDIT
9. Down arrow (↓) four times
10. Type: 6
11. Down arrow (↓) three times
12. Type: 6
13. Enter (system writes: BRIDGER)
14. Press F9 SAVE
15. Press F10 (for Prediction Models Menu)
16. Press F10 (for Basic Information Menu)

6.3.3 Facility Resource Description Data (Read Section 2.2.3.1). Research has just been completed on Community Facilities for Personnel Support and Services, F4C 23000 Series facilities. The research has shown that resource prediction accuracy can be improved greatly by using the new information instead of the general building information currently being used.

6.3.3.1 Component Tree Table (Read Section 2.2.3.2). ADD the new tree ID "BP" titled "Personnel Support and Services" to the table. Do not add any components to the table at this time. You will add components as described in the next paragraph.

Commands. From Basic Information Menu:

1. Down arrow (↓) (to Facility Resource Data
2. Enter (for Facility Resource Data Menu)
3. Down arrow (↓) (to Component Tree Table)
4. Enter (for Component Tree Table)
5. Press F7 ADD
6. Type: BP
7. Enter
8. Type: Personnel Support and Services
9. Press F9
10. Press F10 (for Command Mode)
11. Press F10 (for Facility Resource Data Menu).

6.3.3.2 Basic Task Table (Read Section 2.2.3.3). ADD the new Basic Task Group ID "P5" which is related to component tree ID "BP" and titled "Personnel Support and Services." ADD the replacement task "0415116." Fill in the levels required as:

Level 2 0400000 Exterior Closure
Level 3 0410000 Exterior Walls
Level 4 0415000 Exterior Finishes
Level 5 0415100 Clay Brick
Level 6 0415110 First Floor

1. Task Id... [0415116]
2. Task Desc.. [REPLACE CLAY BRICK EXTERIOR WALL - 1ST F]
3. Unit of Measure Index. [2]
4. Trade Index. [16]
5. Task Classification. . [0]
6. High Task Frequency. . [499.00] in years
7. Average Task Frequency [500.00] in years
8. Low Task Frequency . . [501.00] in years
9. Labor Requirement. . . [1.09213] Labor hours
10. Material Requirements. [1.15000] Costs
11. Equipment Requirements [1.09213] Equipment hours
12. Equipment ID [1]

Now ADD task 0415112.

1. Task Id... [0415112]
2. Task Desc.. [Repair Clay Brick Exterior Wall - 1st Fl]
3. Unit of Measure Index. [2]
4. Trade Index. [16]
5. Task Classification. . [0]
6. High Task Frequency. . [20.00] in years
7. Average Task Frequency [25.00] in years
8. Low Task Frequency . . [30.00] in years
9. Labor Requirement. . . [.02418] Labor hours
10. Material Requirements. [.02300] Cost
11. Equipment Requirements [.02418] Equipment hours
12. Equipment ID [1]

Commands. From the Facility Resource Data Menu:

1. Down arrow (↓) (to Basic Task Table)
2. Enter (for Basic Task Table)
3. Press F7 ADD
4. Type: BP (Tree ID)
5. Enter
6. Type: P5 (Group ID)
7. Enter
8. Type: Personnel Support and Services (Description)
9. Press F9 SAVE (System puts you in the add a new task mode)
10. Type: 0415116 (Task ID)
11. Enter
12. Type: Exterior Closure
13. Enter
14. Type the next descriptions and hit Enter
15. Press F9 (Save New Levels)
16. Replace Clay Brick Exterior Wall - 1st FL
17. Enter
18. Type screen items (3) through (12)
19. Press F9 SAVE
20. Press F7 ADD (add all information and press F9 SAVE)
21. Press F10 (to go back to Basic Task Table)
22. Press F10 (to go from ADD to Command Mode)
23. Press F10 (to go to Facility Resource Data Menu).

You have just entered several code indexes for:

1. Unit of Measure
2. Trade
3. Task Classification
4. Equipment ID.

Take time to look at those tables now.

6.3.3.2.1 Units of Measure. EDIT and add a new unit of measure, cubic feet, as ID 7 and SAVE.

Commands. From the Facility Resource Data Menu:

1. Down arrow (↓) (to units of measure)
2. Enter (for units of measure)
3. Press F5 EDIT
4. Press F3
5. Type: 7
6. Enter
7. Type: cubic feet
8. Press F9
9. Press F10 (for Facility Resource Data Menu).

6.3.3.2.2 Trade and Costs. EDIT the carpenter rates and change the in-house labor rate to \$19.75 per hour, and SAVE.

Commands. From the Facility Resource Data Menu:

1. Down arrow (↓) four times (to Trade and Costs)
2. Enter (for Trade and Cost)
3. Press F5 EDIT
4. Down arrow (↓) (to in-house labor)
5. Type: 19.75
6. Press F9
7. Press F10.

6.3.3.2.3 Task Classification. EDIT the table and add a new task classification, 5, titled "Preventive maintenance," and SAVE.

Commands. From the Facility Resource Data Menu:

1. Down arrow (↓) five times (to Task Classification)
2. Enter
3. Press F5 EDIT
4. Down arrow (↓) four times (to ID 5)
5. Type: Preventive Maintenance
6. Press F9
7. Press F10 (for Facility Resource Data Menu).

6.3.3.2.4 Equipment and Costs. ADD a new piece of equipment, 04, titled "dozer" at \$35/hour.

Commands. From the Facility Resource Data Menu:

- | | |
|--|--|
| 1. Down arrow (↓) six times to Equipment and Costs | 6. Type: Dozer |
| 2. Enter (for Equipment Costs) | 7. Enter |
| 3. Press F7 ADD | 8. Type: 35.0 |
| 4. Type: 04 | 9. Press F9 SAVE |
| 5. Enter | 10. Press F10 (for Facility Resource Data Menu). |

6.3.3.2.5 Work Performance Methods. You want to define a new set of work management methods for the tasks defined in the table identified as BP P5. Select Tree ID "BP" and Group ID "P5" (see command lines 1 through 4).

Your supervisor wants you to define six new work management methods by editing the table (see command lines 5 through 11):

- Method 1. Fire station
- Method 2. Bus and police station
- Method 3. Chapels and R.E. facilities
- Method 4. Bakery and kitchen
- Method 5. Schools
- Method 6. Post office.

Now define the major work types under each work management method (see command lines 12 through 20):

- Method 1. Contract
- Method 2. Troop
- Method 3. Self-help
- Method 4. In-house
- Method 5. No change
- Method 6. No change.

Now update the data base.

To define how the work will be performed for the two individual tasks located in Basic Task Table "P5" (see command lines 21 through 32):

Work	<u>Task No.</u>	<u>Task No.</u>
Performance	0415116	0415112
Method		
1	In-house	In-house
2	Contract	In-house
3	Troop	In-house
4	Self-help	Self-help

To define the methods, SELECT "Define an Individual task." FIND task "0415116" and EDIT the task. Define the correct four methods and SAVE. Do the same for the second task.

Commands. From Facility Resource Data Menu:

Select Basic Task Table.

1. Press (↓) to Work Performance Method)
2. Enter (Basic Task File Selection
3. Use (↓) (to BP, P5)
4. Press F6 (for Work Performance Menu)

Define Work Management Methods.

5. Type: 1 (to define methods)
6. Enter
7. Press F5 (to edit table)
8. Enter
9. Type the six entries, ending with Enter
10. Press F9 (to SAVE and go back to selection menu)
11. Enter

Define Work Types.

12. Type: 2 (to define all work types)
13. Enter

14. Press F5 (to edit table)
15. Enter
16. Use space bar to select one of the four options and (↓) to move to the next method. Set all four methods)
17. Press F9 (for Work Performance Main Selection Menu)

Individual Task Definitions.

18. Type: 3 (to define individual tasks)
19. Enter
20. Press F5
21. Type: T
22. Type: I
23. Type: I
24. Type: S
25. Press F9
26. Page Down (to task 0415116)
27. Press F5
28. Type: I
29. Type: C
30. Type: T
31. Type: S
32. Press F9 (for Command Mode)
33. Press F10 (for Work Performance Main Menu)
34. Enter (for Basic Task File Selection)
35. Press F10 (for Facility Resource Data Menu).

6.3.3.3 Total/Partial Summary Tasks (Read Section 2.2.3.4). The two tables: (1) total task summary and (2) partial task summary would normally be created by a DA support agency and would require no installation editing. For practice, ADD two new summary group tables related to the Tree ID "BP."

<u>Tree ID</u>	<u>Group ID</u>	<u>Description</u>
1. BP	A5	Total Summary
2. BP	B5	Partial Summary

INSERT one component ID into each file:

Component ID: 1111111
 Component Description: Test
 Trade Index: 1
 Unit of Measure: 2
 Classification Indicator: 0
 Work Performance Methods 1 through 6: I
 Number of Years: 5

<u>Years</u>	<u>Labor</u>	<u>Material</u>	<u>Equipment</u>
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5

Commands. From the Facility Resource Data Selection Menu:

- Down arrow (↓) eight times (to Total/Partial Summary Table)
- Enter
- Press F10 (to go to ADD MODE for Summary Task File)

Total Task Summary.

- Press F7 ADD
- Type: BP Tree ID)
- Enter
- Type: A5 (Group ID)
- Enter
- Type: Total Summary
- Press F9
- Type: 1111111 (Component ID)
- Enter all data for this component
- Press F9

Partial Task Summary.

- Type: BP (Tree ID)
- Enter
- Type: B5 (Group ID)
- Enter
- Type: Partial Summary
- Press F9
- Add all 1111111 data and save
- Press F9 (for ADD MODE)
- Press F10 (for COMMAND MODE)
- Press F10 (for Facility Resource Data Selection Menu)

6.3.3.4 F4C Resource Description Table (Read Section 2.2.3.1). You have just added four new information files to the MRPM system:

- | | |
|---------------------------|----|
| 1. Tree ID Table: | BP |
| 2. Basic Task Table: | P5 |
| 3. Total Summary Table: | A5 |
| 4. Partial Summary Table: | B5 |
| 5. Unit Cost Table: | AA |

Use the four new tables for all facilities in the F4C 7300000 series. FIND the 7300000 range entry and EDIT to modify the four table entries to use the new tables, then SAVE your modification.

Commands. From Facility Resource Data:

- | | |
|---|---|
| 1. Enter (for F4C Resource Description Table) | 11. Type: A5 (Total Summary) |
| 2. Press F3 | 12. Enter |
| 3. Type: 7300000 | 13. Type: B5 (Partial Summary) |
| 4. Enter | 14. Enter |
| 5. Press F5 EDIT | 15. Type: AA (unit cost ID) |
| 6. Down arrow (↓) (to tree-ID) | 16. Enter |
| 7. Type: BP (tree-ID) | 17. Press F9 |
| 8. Enter | 18. Press F10 (for Facility Resource) |
| 9. Type: P5 (Basic Task) | 19. Press F10 (for Basic Information Menu). |
| 10. Enter | |

6.3.4 Reference Data for Individual Facilities.

6.3.4.1 Subinstallation and Area Identification (Read Section 2.2.4.1). Add a new area with ID "55" and description "Steam Engine Repair Shops belonging to subinstallation 55."

Commands. From Basic Information Menu:

- | | |
|---|--|
| 1. Down arrow (↓) three times (to Data for Individual Facilities) | 11. Enter (for Area). |
| 2. Enter | 12. Press F7 ADD |
| 3. Use (↓) (to Subinstallation) | 13. Type: 55 |
| 4. Enter | 14. Enter |
| 5. Press F7 ADD | 15. Type: 55 |
| 6. Type: 55 | 16. Enter |
| 7. Enter | 17. Type: Steam Engine Repair Shops |
| 8. Type: DEH shops | 18. Press F9 |
| 9. Press F9 | 19. Press F10 (for Reference Data Menu). |
| 10. Press F10 (for Reference Data Menu) | |

6.3.4.2 Travel Zones (Read Section 2.2.4.2). You have just installed a new top-security area on your base in travel zone 3. It takes 1 hour to drive from the shop and clear security going in and 30 minutes

coming out. Assume two trips per working day. FIND zone 21, EDIT and change the factor of $8/(8 - 2 \times 1.5) = 1.60$, and SAVE.

Commands. From Reference Data Menu:

- | | |
|------------------------------------|-----------------------------|
| 1. Down arrow (↓) (to Travel Zone) | 6. Press F5 |
| 2. Enter | 7. Type: 1.60 |
| 3. Press F3 | 8. Press F9 |
| 4. Type: 21 | 9. Press F10 (for Reference |
| 5. Enter | Menu) |

6.3.4.3 Special Condition Multipliers. (see 2.2.4.3) - ADD a new special condition multiplier table called "11" to cover "30 day tank training units." SELECT this new table. Use your experience and imagination as you answer the questions. Now look at all the multiplication factors that have been entered.

Commands. From Reference Data Menu:

- | | |
|--|--|
| 1. Down arrow (↓) three times (to Special Condition Multipliers-SCM) | 8. Enter 5 for the installation zone, select any values, use Page Down and Page Up to get to the next page of questions) |
| 2. Enter (for SCM Definitions) | 9. Press F9 (for Summary for each CACES |
| 3. Press F7 ADD | 10. Press F10 (for SCM Definitions) |
| 4. Type: 11 | 11. Press F10 (for Reference Data Menu). |
| 5. Type: 30-day tank training units | |
| 6. Press F9 | |
| 7. Press F6 | |

6.3.4.4 Financial Management (Appropriations) (Read Section 2.2.4.4).

6.3.4.4.1 Appropriation Code Table. Two new appropriations have been approved:

<u>APR ID.</u>	<u>APR Code #</u>	<u>Appropriation Code</u>
03	SC	Space Command
04	FS	Food Service

ADD the new appropriations to the table.

Commands. From Reference Data Menu:

1. Press 4 (↓) to Financial Management)
2. Enter (for Financial Management Menu)
3. Enter (for Appropriation Code Table)
4. Press F7
5. Type: 03
6. Enter
7. Type: SC
8. Enter
9. Type: Space Command
10. Press F9 SAVE
11. Type: 04
12. Enter
13. Type: FS
14. Enter
15. Type: Food Service
16. Press F9
17. Press F10
18. Press F10 (for Financial Management Menu)
19. Press F10 (for Reference Data Menu).

6.3.4.4.2 AMS Functional Group Codes. You will not have to edit this table.

6.3.4.4.3 F4C to AMS Conversion Table. You will not have to edit this table.

6.3.4.4.4 Standard Report Table. You will not have to edit this table.

6.3.4.5 Facility Funding Profile. (Read Section 2.2.4.5) - Several new facilities have been constructed to serve multiple organizations. Many of the new facilities are shared by both organizations. The floor area is split 75 percent for space command (03) and 25 percent for food service (04). All equipment costs are paid 100 percent from appropriation (02). ADD a new funding profile (02) titled "Space Facilities" to the table and SAVE. There will be two labor and material accounts and one equipment account.

Commands. From the Reference Data Menu:

1. Down arrow (↓) five times (to Facility Funding Profile)
2. Enter
3. Press F7 ADD
4. Type: 02 (profile ID)
5. Enter
6. Type: 2 (Labor & Material Accounts)
7. Enter
8. Type: 1 (equipment accounts)
9. Press F9 SAVE
10. Type: Space Facilities
11. Enter
12. Type: 03
13. Enter
14. Type: 75
15. Enter
16. Type: 04
17. Enter
18. Type: 25
19. Enter
20. Type: 02 (equipment)
21. Enter
22. Type: 100
23. Press F9 SAVE
24. Press F10 (for Reference Data Menu)
25. Press F10 (for Basic Information Menu)
26. Press F10 (for Main Menu)

6.4 Review and Approval (Read Section 2.4). Your reporting installation has an organizational code of Z1. Three installations report through your organization. Their organizational codes are Y2, Y3, and Y4. All organizations were requested to prepare a funding report for Appropriation RPMA-1 (01), AMS: K2600 Administration (69) after March 1, 1987 (03011987).

The MACOM can test this section by using organizational ID (ZZ), the Army by using organizational ID (00). Either must first set the correct organization code in the report period screen.

6.4.1 Reporting Installation.

6.4.1.1 Generate Resource Summary (Read Section 2.4.2). Your supervisor has told you to create a resource prediction summary for your reporting installation (Z1) for RPMA-1 Appropriation ID (01), AMS Code K2600, and AMS ID (69), and have it turned in before 2 p.m. today. You are to use all data regardless of the date it was calculated. Reports are for 1986 through 1995 (10 years).

Commands. From the Main Menu:

1. Down arrow (↓) (to Review and Approval)
2. Enter (for Review and Approval)
3. Enter (for Generate Resource Summary)
4. Type: 1 (to create report for organization ID)
5. Enter
6. Type: 01 (APR No.)
7. Enter
8. Type: 69 (AMS No)
9. Enter
10. Type: 03011987
11. Enter
12. Press F6 (system responds with a message on the screen and a printed list of errors or problems. Review the printout and continue to process)
13. Enter (to continue to process)
14. Type: 1986 (year)
15. Enter
16. Type: 10 (number of years)
17. Enter
18. Press F6
19. Type: Y (to delete existing file)
20. Enter (system will calculate the funding report)
21. Type: N (no report wanted)
22. Enter (system responds to Review and Approval Menu)
23. Press F10 (for Review and Approval).

6.4.1.2 Display or Graph Existing Report File (Read Section 2.4.3). Your supervisor requests a screen print of your organization totals and a bar graph of the total costs.

Commands. From Review and Approval Menu:

1. Down arrow (↓) (to Display Resource Summary)
2. Enter
3. Type: Z1 (your organization code)
4. Enter
5. Type: 01 (your APR ID)
6. Enter
7. Type: 69 (your AMS ID)
8. Enter
9. Enter (will use BF table)
10. Press F6 (use function keys to review data; F1 to first record)
11. Print screen
12. Type: G (graph)
13. Type: 7 (total cost)
14. Enter (System shows different screens before the graph appears)
15. Type: P (Print)
16. Type: P (Printer) (System will print the graph and redisplay table when finished)
17. Type: Q (Quit)
18. Type: Y (Yes)
19. Press F10 (to Review and Approval).

6.4.1.3 Report for Total and Components (Read Section 2.4.4). Now obtain a printed report for RPMA-1 (01) AMS K2600 (69).

Commands. From the Review and Approval Menu:

- | | |
|--|---|
| 1. Down arrow (↓) twice (to report for | 8. Enter |
| Total and Component) | 9. Press F6 |
| 2. Enter | 10. Type: 1986 |
| 3. Type: Z1 (your organization code) | 11. Enter |
| 4. Enter | 12. Type: 10 |
| 5. Type: 01 (your APR ID) | 13. Enter |
| 6. Enter | 14. Press F6 |
| 7. Type: 69 (your AMS ID) | 15. Type: 1 (for total plus components) |
| | 16. Enter (report sent to the printer). |

6.4.1.4 Ordered Component and Task Report (Read Section 2.4.5). Produce one report for 1986 using a 2 percent cutoff for reporting purposes.

Commands. From Review and Approval Menu:

- | | |
|---------------------------------------|---|
| 1. Press 3 (↓) (to ordered Component | 11. Type: 1986 (Starting Year) |
| and Task Report) | 12. Enter |
| 2. Enter | 13. Type: 1 (Number of Years) |
| 3. Down arrow (↓) twice (to Yearly by | 14. Enter |
| Funding Report) | 15. Type: 2 (percent cutoff) |
| 4. Enter | 16. Enter |
| 5. Type: Z1 (organization ID) | 17. Type: 3 (both) |
| 6. Enter | 18. Enter |
| 7. Type: 01 (Appropriation ID) | 19. Press F6 (report will be generated) |
| 8. Enter | 20. Press F10 (to Main Menu) |
| 9. Type: 69 (AMS Code) | 21. Press F10 (to DOS prompt). |
| 10. Enter twice (F6) | |

6.4.1.5 Transmit Resource Files to MACOM (Read Section 2.4.6). Now make a copy of your files to send to the MACOM.

Commands. From the "E:\DATA\LEARN" prompt:

1. Type: Backup ROXX*. * a: (replace XX with your organization code: Z1, Z2, 00).
2. Enter (follow the directions printed on the screen).

6.5 Saving Directories on Tape.

6.5.1 Saving C:\MAYNARD.

Commands.

1. Type: TMENU. A menu window should appear on the screen with the title "TMENU (V2.0)." Be certain that the BACKUP option is highlighted in RED. If this is not the case, use the arrow keys or the space bar to toggle to the backup option.
2. Press the down arrow key once to highlight the SELECT option.
3. Press Enter.
4. Select Drive C: for backup. Drive C: should be highlighted; however, if it is not, press the arrow keys to move the selected option to Drive C:.
5. Press Enter. A directory listing for Drive C: should now appear on the screen. Since you would like to back up the directory C:\MAYNARD, press the down arrow key to select the MAYNARD directory.
6. Press space bar. (Notice that your selection is now highlighted in red.) Answer NO to the prompt so as not to include subdirectories in the backup.
7. Hold down (ctrl) and press Enter. Now the screen should display the original menu. (Notice that the GO option is highlighted.)
8. Press Enter to begin backup procedure.
9. Type the label name MAYNARDBKUP to identify the backup volume. The name should be unique and should adequately identify the backup for future reference. Once the procedure is complete, the status screen will display:

"Backed up XXX files in XX directories"
"type any key to continue"
10. Press Enter. Press space bar six times to highlight the QUIT option and then press Enter. This completes the steps necessary to back up the C:\MAYNARD directory.

6.5.2 Saving D:\BTRIEVE.

Commands.

1. Type: TMENU. A menu window should appear on the screen with the title "TMENU (V2.0)." Be certain that the BACKUP option is highlighted in RED. If it is not, use the arrow keys or the space bar to toggle to the backup option.
2. Press the down arrow key once to highlight the SELECT option.

3. Press Enter.
4. Press the down arrow key to select Drive D: for backup. (Notice that Drive D: is now highlighted.)
5. Press Enter. A directory listing for Drive D: should now appear on the screen. To back up the directory D:\BTRIEVE, press the down arrow key to select the BTRIEVE directory.
6. Press space bar. (Your selection is now highlighted in red.) Answer "N" to the prompt.
7. Hold down (Ctrl) and press Enter. Now the screen should display the original menu. (Notice that the "GO" option is highlighted.)
8. Press Enter to begin the backup procedure.
9. Type the label name BTRIEVEBKUP to identify the backup volume. The name should be unique and should adequately identify the backup for future reference. Once the procedure is complete, the status screen will display:

"Backed up XXX files in XX directories"
"type any key to continue"
10. Press Enter. Press space bar six times to highlight the QUIT option and then press Enter. This completes the steps necessary to back up the D:\BTRIEVE directory.

6.5.3 Saving E:\DATA\Y1.

Commands.

1. Type: TMENU. A menu window should appear on the screen with the title "TMENU (V2.0)." Be certain that the BACKUP option is highlighted in RED. If it is not, use the arrow keys or the space bar to toggle to the backup option.
2. Press the down arrow key once to highlight the SELECT option.
3. Press Enter.
4. Press the down arrow key to select Drive E: for backup. (Notice that Drive E: should now be highlighted.)
5. Press Enter. A directory listing for Drive E: should now appear on the screen. Since you would like to back up the directory E:\DATA\Y1, press the down arrow key to select the DATA directory.
6. Press Enter. A directory listing of E:\DATA should now appear on the screen. Use the arrow keys to select the subdirectory Y1.
7. Press space bar. (Notice that your selection is now highlighted in red.) Answer NO to the prompt so as not to include subdirectories in the backup.

8. Hold down (ctrl) and press Enter. Now the screen should display the original menu. (Notice that the "GO" option is highlighted.)
9. Press Enter to begin backup procedure.
10. Type the label name DATAY1BKUP to identify the backup volume. The name should be unique and should adequately identify the backup for future reference. Once the procedure is complete, the status screen will display:

"Backed up XXX files in XX directories"
"type any key to continue"
11. Press Enter. Press space bar six times to highlight the "QUIT" option and then press Enter. This completes the steps necessary to back up the E:\DATAY1 directory.

6.6 Restoring Directories From Tape.

6.6.1 Restoring C:\MAYNARD.

1. Type: TMENU. A menu window should appear on the screen with the title "TMENU (V2.0)." Use the arrow keys or the space bar to toggle to the RESTORE option.
2. Press the down arrow key once to highlight the SELECT option.
3. Press Enter.
4. Search for the label name MAYNARDBKUP. You can search the length of the tape by answering NO to the question "Would you like a directory of this information" and then answering YES to the question "Do you wish to search for another backup set on this tape."
5. To select the label name MAYNARDBKUP, answer YES to the question "Would you like a directory of this information." A directory listing for drive C: should now appear on the screen.
6. Press space bar. (Notice that your selection is now highlighted in red.) Answer NO so as not to include the subdirectories.
7. Hold down (ctrl) and press Enter.
8. Press the up arrow key to select the DRIVE option.
9. Press Enter.
10. Press Enter to select Drive C:. (If C: is not highlighted, press the arrow keys to select Drive C:.)
11. The screen displays the original menu. (Again, notice that the GO option is highlighted.) Press Enter.
12. Answer YES to the warning: "Do you wish to continue." Once the procedure is complete, the status screen will display:

"Restored XXX files in XX directories"
"type any key to continue"

13. Press Enter. Press space bar four times to highlight the QUIT option and then press Enter. This completes the steps necessary to restore the C:\MAYNARD directory.

6.6.2 Restoring D:\BTRIEVE.

1. Type: TMENU. A menu window should appear on the screen with the title "TMENU (V2.0)." Use the arrow keys or the space bar to toggle to the RESTORE option.
2. Press the down arrow key once to highlight the SELECT option.
3. Press Enter.
4. Search for the label name BTRIEVEBKUP. You can search the length of the tape by answering NO to the question "Would you like a directory of this information" and then answering YES to the question "Do you wish to search for another backup set on this tape."
5. To select the label name BTRIEVEBKUP, answer YES to the question "Would you like a directory of this information." A directory listing for Drive D: should now appear on the screen.
6. Press space bar. (Notice that your selection is now highlighted in red.) Answer NO so as not to include the subdirectories.
7. Hold down (ctrl) and press Enter. Now the screen should display the original menu. (Notice that the GO option is highlighted.)
8. Press the up arrow key to select the DRIVE option.
9. Press Enter.
10. Press the down arrow key to highlight Drive D.
11. Press Enter to select Drive D.
12. The screen displays the original menu. (Again, notice that the GO option is highlighted.) Press Enter.
13. Answer YES to the warning: "Do you wish to continue." Once the procedure is complete, the status screen will display:

"Restored XXX files in XX directories"
"type any key to continue"

14. Press Enter. Press space bar four times to highlight the QUIT option and then press Enter. This completes the steps necessary to restore the D:\BTRIEVE directory.

6.6.3 Restoring E:\DATA\Y1.

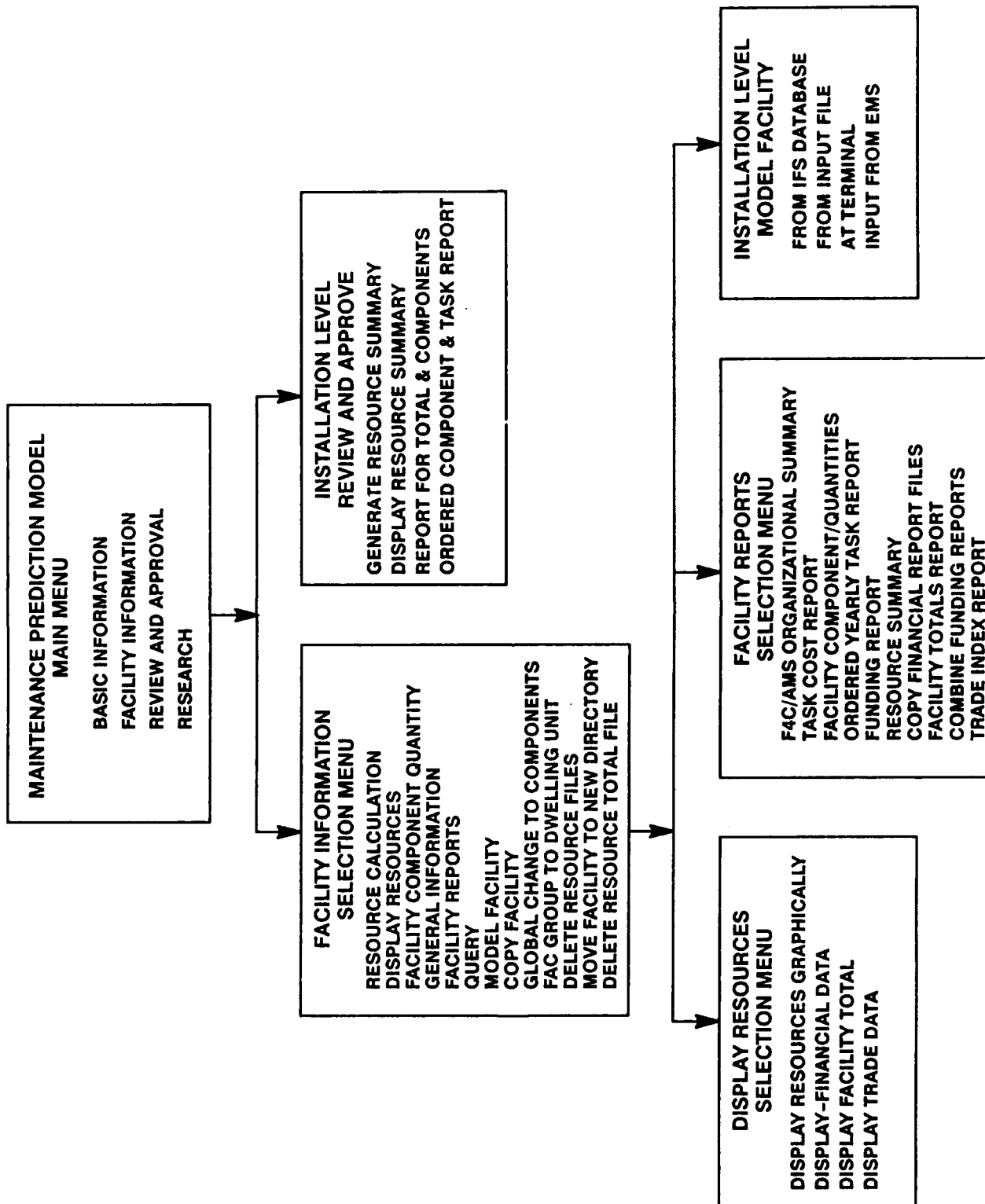
Commands.

1. Type: TMENU. A menu window should appear on the screen with the title TMENU (V2.0). Use the arrow keys or the space bar to toggle to the RESTORE option.
2. Press the down arrow key once to highlight the SELECT option.
3. Press Enter.
4. Search for the label name DATAY1BKUP. You can search the length of the tape by answering NO to the question "Would you like a directory of this information" and then answering YES to the question "Do you wish to search for another backup set on this tape."
5. To select the label name DATAY1BKUP, answer YES to the question "Would you like a directory of this information." A directory listing for drive E: should now appear on the screen.
6. Press Enter. A directory listing of E:\DATA should now appear on the screen. Use the arrow keys to select the subdirectory Y1.
7. Press space bar. (Notice that your selection is now highlighted in red.) Answer NO to the prompt so as not to include subdirectories in the backup.
8. Hold down (ctrl) and press Enter. Now the screen should display the original menu. (Notice that the GO option is highlighted.)
9. Press the up arrow key to select the DRIVE option.
10. Press Enter.
11. Press the down arrow key to highlight Drive E.
12. Press Enter to select Drive E:.
13. The screen displays the original menu. (Again, notice that the GO option is highlighted.) Press Enter.
14. Answer YES to the warning: "Do you wish to continue." Once the procedure is complete, the status screen will display:

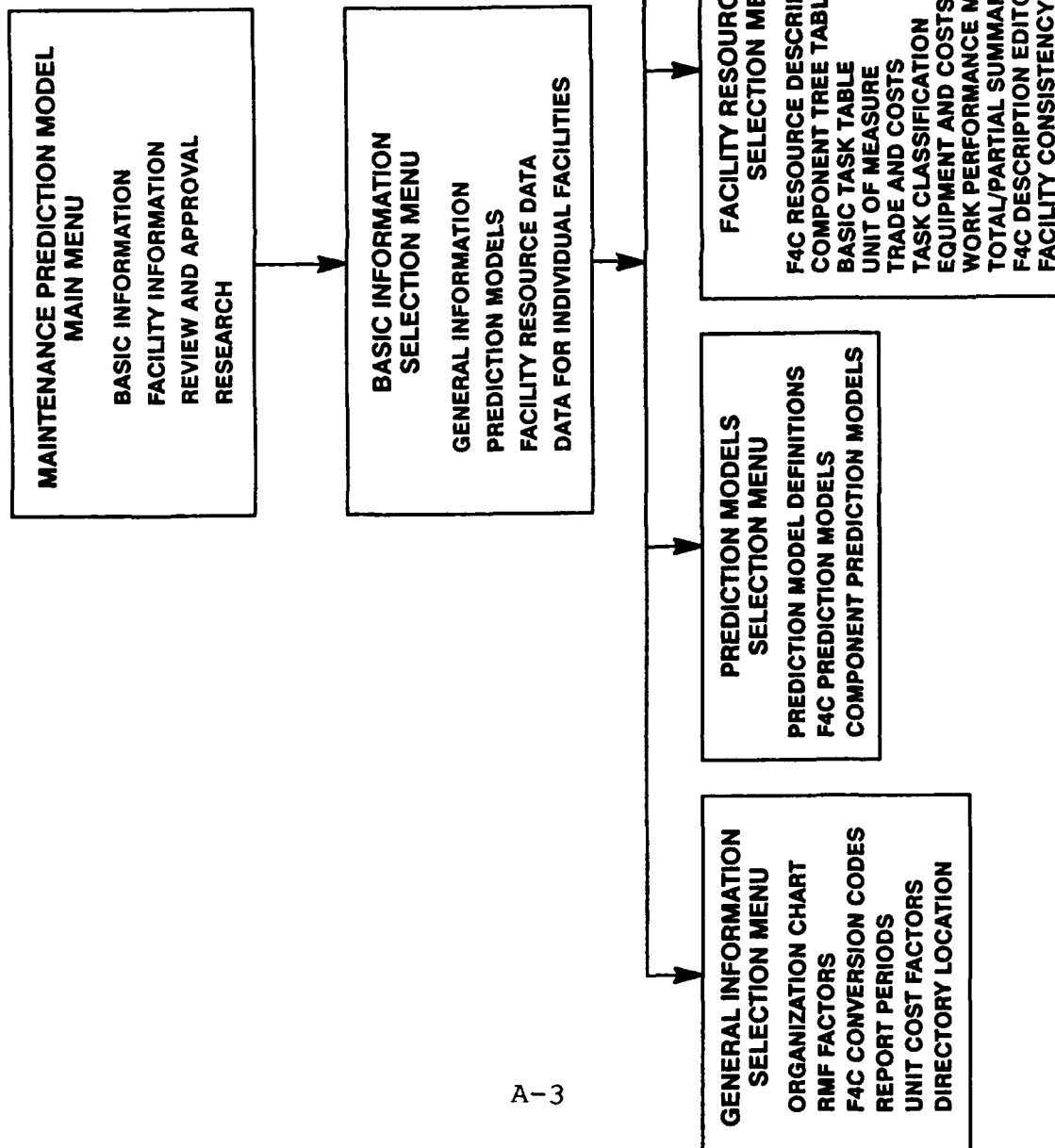
"Restored XXX files in XX directories"
"type any key to continue"
15. Press Enter. Press space bar four times to highlight the QUIT option and then press Enter. This completes the steps necessary to restore the E:\DATA\Y1 directory.

**APPENDIX A:
SYSTEM CHART**

MRPM MENU STRUCTURE



MRPM MENU STRUCTURE



APPENDIX B:
MRPM SYSTEM OPERATIONS

B-1 MEMORY STORAGE LAYOUT.

The system uses three disk storage units: C:, D:, and E:. Drive C: is established for the storage of special hardware support packages as well as standard system files and DOS. Drive D: contains all MRPM software. *You should never add other packages in the D: drive.*

Drive E: contains all data for MRPM. The \DATA directory contains all installations (Y1, Y2, etc.), the reporting installation (RI), and the two learn directories. The Y1 directory contains all Army and installation basic data. Other installation directories (Y2, Y3, etc.) contain only a few installation files that have been copied from \BASEINST.

The directories E:\01 through E:\99 are initialized by copying \BLKFACIL. This series of directories contains all information about individual facilities. One range of directories, for example \09 through \21, could contain all individual facility information for installation Y2.

Directories \MPMV2\MPM and \MSTOOLS were established to allow the Micro Soft Chart package to function correctly. Directories \BASEINST and \BLKFACIL contain initialization files for installations and facility directories, respectively.

B-2 FILES NEEDED IN A NEW INSTALLATION DIRECTORY.

All basic installation- and Army-wide files are stored in E:\DATA\Y1. All installation directories are named E:\DATA\AX where A in AX is an alphabetic character--usually Y--and the X in AX is an alphanumeric character (1-9, A-Z). The required files are stored in the directory named E:\BASEINST. This directory should contain the following files:

1. INSTINFO.DAT
2. TRDCOSTS.DAT
3. EQC-TAB.XDB
4. AREA-TAB.XDB
5. SUB-TAB.XDB
6. FACILITY.XDB (blank)
7. RSMTTOTL.XDB (blank).

The correct directories will be established and loaded by execution of the F3 SETUP function on the Installation Selection Menu.

B-3 FILES NEEDED IN A NEW FACILITY DIRECTORY.

All facility directories are named E:\NN where NN can vary from 01 to 99. The required blank files are stored in the directory named E:\BLKFACIL. This directory should contain FACILITY.XDB (blank). The correct directories will be established and loaded by execution of the F3 SETUP function on the Installation Selection Menu.

B-4 FILES NEEDED IN THE FIRST INSTALLATION DIRECTORY.

The directory name for the first installation will always be E:\DATA\Y1. All basic installation- and Army-wide files are stored in this directory. This directory must be initially loaded from diskettes by the user. This directory should contain the following files:

- | | |
|------------------|------------------|
| 1. CLASLST.DAT | 44. BTSMBFAT.XDB |
| 2. INSTINFO.DAT | 45. RSMTTOTL.XDB |
| 3. MC.DAT | 46. CALC.LOG |
| 4. TRAVTIME.DAT | 47. F4CDESC.XDB |
| 5. VALLIST.DAT | 48. F4CBLD.XDB |
| 6. WP-DESC.DAT | |
| 7. STDREP.XDB | |
| 8. TRWDBF--.DAT | |
| 9. AMSF4C.XDB | |
| 10. AMSCOD.XDB | |
| 11. APRCOD.XDB | |
| 12. DES-BSTM.XDB | |
| 13. DES-TASK.XDB | |
| 14. DES-TRWD.XDB | |
| 15. F4C-XTBL.XDB | |
| 16. FFPROF.XDB | |
| 17. ORGFGC.XDB | |
| 18. PMCOMP.XDB | |
| 19. PMDEF.XDB | |
| 20. PMF4C.XDB | |
| 21. RMF-FACT.XDB | |
| 22. TASKBFA5.XDB | |
| 23. TRWDBF--.XDB | |
| 24. EQC-TAB.XDB | |
| 25. SCMDEF.DAT | |
| 26. TASKBFB5.XDB | |
| 27. BTSMBFT5.XDB | |
| 28. BTSMBFP5.XDB | |
| 29. SCMID01.DAT | |
| 30. TRDCOSTS.DAT | |
| 31. SUB-TAB.XDB | |
| 32. GRAPH80.ALL | |
| 33. BTSMCFBF.XDB | |
| 34. SYLCHART.ASC | |
| 35. AREA_TAB.XDB | |
| 36. SCMDEF.XDB | |
| 37. GRAPH80.AVG | |
| 38. GRAPH80.NEW | |
| 39. MAINTFIL.DAT | |
| 40. TEMPCHART | |
| 41. TEMP | |
| 42. BTSMBFFT.XDB | |
| 43. BTSMBFUT.XDB | |

B-5 FILES NEEDED IN THE LEARNING DIRECTORIES.

All learn-related files are stored in E:\DATA\LEARNBAS. Files are copied automatically to the E:\DATA\LEARN directory by typing LEARN. The following files are in the directory:

1. R0Y30169.XDB	45. BTSMBFUT.XDB	90. RSMY1069.XDB
2. CLASLST.DAT	46. BTSMBFAT.XDB	91. R0Y20169.XDB
3. INSTINFO.DAT	47. TREE1032.DAT	92. RS010169.XDB
4. MC.DAT	48. TREE1001.DAT	93. RS020169.XDB
5. TRAVTIME.DAT	49. TREE1004.DAT	94. R0Z10169.XDB
6. TRDCOSTS.DY1	50. TREE1002.DAT	
7. VALLIST.DAT	51. TREE1003.DAT	
8. WP-DESC.DAT	52. TREE1005.DAT	
9. STDREP.XDB	53. TREE1007.DAT	
10. AMSF4C.XDB	54. TREE1033.DAT	
11. AMSCOD.XDB	55. TREE1034.DAT	
12. APRCOD.XDB	56. TREE1035.DAT	
13. DES-BTSM.XDB	57. CTOD1001.XDB	
14. DES-TASK.XDB	58. CTOD1004.XDB	
15. DES-TRWD.XDB	59. CTOD1002.XDB	
16. F4C-XTBL.SAV	60. CTOD1003.XDB	
17. FFPROF.XDB	61. CTOD1005.XDB	
18. ORGFGC.XDB	62. CTOD1007.XDB	
19. PMCOMP.XDB	63. CTOD1032.XDB	
20. PMDEF.XDB	64. CTOD1034.XDB	
21. PMF4C.XDB	65. CTOD1035.XDB	
22. RMF-FACT.XDB	66. CTOD1033.XDB	
23. TASKBFA5.XDB	67. FACILITY.XDB	
24. TRWDBF--XDB	68. F4C-XTBL.XDB	
25. EQC-TAB.XDB	69. TEMP	
26. SCMDEF.DAT	70. RSMY1032.XDB	
27. TASKBFB5.XDB	71. RSMY1033.XDB	
28. BTSMBFT5.XDB	72. RSMY1034.XDB	
29. BTSMBFP5.XDB	74. RSMY1035.XDB	
30. SCMID01.DAT	75. F4CDESC.XDB	
31. CTOD1037.XDB	76. TRWDBF--.DAT	
32. TRDCOSTS.DAT	77. RSMY1037.XDB	
33. TREE1037.DAT	78. CALC.LOG	
34. SUB-TAB.XDB	79. BT-PASS.DAT	
35. GRAPH80.ALL	80. RSMTTOTL.XDB	
36. BTSMCFBF.XDB	81. R0010169.XDB	
37. SYLCHART.ASC	82. SCMPRV01.DAT	
38. AREA_TAB.XDB	83. INSTMENU.TB1	
39. SCMDEF.XDB	84. R0000169.XDB	
40. GRAPH80.AVG	85. RSMY1001.XDB	
41. GRAPH80.NEW	86. RSMY1002.XDB	
42. MAINTFIL.DAT	87. RSMY1003.XDB	
43. TEMPCHRT	88. RSMY1004.XDB	
44. BTSMBFFT.XDB	89. RSMY1005.XDB	

B-6 IDENTIFICATION OF FACILITY INFORMATION.

The total facility can be divided into subsystems such as interior construction, roof, and exterior construction (Figure B-2). Each system can be divided into subsystems. Interior Construction can be divided into interior doors, windows, and walls. The subsystems can be divided into components such as hollow core wood doors. A component is the smallest item that is important to describe by itself. For most buildings, a door with all hardware is considered the smallest item or component. In historic family housing, the hinges may be important enough to list separately as a component. This division is known as a tree structure. All parts of this tree structure (total facility, systems, subsystems, components) are stored in a table called the Tree ID Table. Each table has a unique two character name. The building facility Tree ID Table is named BF for building facilities.

For every component, there is a list of tasks that must be performed over its life. The high-cost tasks are marked as major (M) tasks. The remaining tasks are considered low-cost. Each task has information related to its description, unit of measure, trade, work performance, frequency, labor hours, material costs, and equipment hours. All of this information is stored in a table called the Basic Task Table. Each table has a unique two-character name. The administration building Basic Task Table is named AT. The MRPM system will calculate each task independently.

To reduce calculation time, a standard task performance pattern has been established for each component. The total resource requirements for each year were determined and stored with reference to the component. This summary of total resource requirements is stored in the Total Summary Table. For administration facilities, the name of the Total Summary Table is AT. The resources for all components under a subsystem, system, and total facility have to be totaled and changed to resource-per-square-foot form. This information is also stored in the Total Summary Table. The information within this table allows you to:

1. Calculate by using component summaries and not individual tasks. Use of component summaries will provide no information about individual tasks.
2. Model by gross square feet of floor area at the total facility, system, or subsystem level. This allows you to obtain an estimate with very little effort. However, the accuracy of the estimate for one specific facility is questionable when such average data is used.

It was decided to compromise the "all tasks" or "all components" options with a middle ground approach: to define and individually calculate the major high cost tasks (m); to combine all the other tasks for a component into one partial summary task; Or to perform calculations using the major cost tasks and one partial summary. Such partial summary component resource information is stored in the Partial Summary Table. For administration facilities, the Partial Summary Table is named AP.

There is only one Tree ID Table for a facility type such as buildings. The Basic Task, Total, and Partial Summary Tables occur in sets for different types of the typical facility, e.g., administrative, family housing, or unaccompanied personnel housing). The major difference between the tasks is normally the frequency of the interior refinishing. For example, painting of family housing may be once every 3 years whereas administrative buildings may be painted once every 8 years.

Since all Army facilities have an F4C code, the best way to store the names of the four tables is by giving the F4C range to which the tables apply. The F4C range for administrative buildings would be 60000 through 69999.

**APPENDIX C:
REPORT FORMATS**

ORGANIZATIONAL SUMMARY REPORT

Date: 5/JUN/87 Page: 1

Installation: Funding Reporting System Demo
Sub-Installation: 01
Area: 01

Area Totals F4C 6000000 to 6900000

Number of Facilities: 14
Total Square Footage: 80035

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	2335.0	2347.0	2328.0	2353.0	2341.0	2286.0	2388.0	2358.0	2421.0	2301.0
Equiv. Hours										
Labor	2432.75	3130.09	3036.92	2582.64	2101.21	2243.00	2919.44	2548.77	3187.31	3702.47
Materials	37487.89	61974.33	54190.49	36016.46	25032.46	26177.34	36865.37	28882.19	48039.16	63597.78
Equipment	2432.75	3130.09	3036.92	2582.64	2101.21	2243.00	2919.44	2548.77	3187.31	3702.47
Costs										
Labor	39654.	51222.	49724.	42218.	34904.	37021.	48693.	42352.	53093.	61574.
Materials	37488.	61974.	54190.	36016.	25032.	26177.	36865.	28882.	48039.	63598.
Equipment	8123.	10376.	10085.	8617.	7267.	7558.	10065.	8708.	10922.	12564.
Totals	85265.	123572.	113999.	86851.	67203.	70757.	95624.	79942.	112055.	137736.

Total dollars for all years 973004.16

Sub-Installation: 01
Area: 02

Area Totals F4C 6000000 to 6900000

Number of Facilities: 2
Total Square Footage: 9622

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	198.0	194.0	206.0	206.0	208.0	209.0	215.0	207.0	212.0	219.0
Equiv. Hours										
Labor	158.81	202.54	230.73	182.63	159.36	356.40	443.32	161.88	197.06	243.27
Materials	981.25	1170.98	14767.40	2546.52	1059.28	7182.92	10870.32	1149.39	1342.14	2240.55
Equipment	158.81	202.54	230.73	182.63	159.36	356.40	443.32	161.88	197.06	243.27
Costs										
Labor	2650.	3362.	3908.	2976.	2668.	5892.	7354.	2708.	3200.	4043.
Materials	981.	1171.	14767.	2547.	1059.	7183.	10870.	1149.	1342.	2241.
Equipment	509.	648.	740.	578.	512.	1142.	1421.	519.	624.	780.
Totals	4140.	5182.	19415.	6101.	4239.	14216.	19645.	4377.	5166.	7064.

Total dollars for all years 89544.46

ORGANIZATIONAL SUMMARY REPORT

Installation: Funding Reporting System Demo
Sub-Installation: 02
Area: 03

Date: 5/JUN/87 Page: 2

Area Totals F4C 6000000 to 6900000

Number of Facilities: 2
Total Square Footage: 5380

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	194.0	217.0	214.0	217.0	225.0	224.0	229.0	231.0	226.0	231.0
Equiv. Hours										
Labor	126.88	240.36	140.12	352.48	299.15	264.85	242.60	272.97	182.44	253.54
Materials	395.48	1035.43	533.64	4132.55	16041.29	2645.04	2979.70	3482.83	1383.18	1947.41
Equipment	126.88	240.36	140.12	352.48	299.15	264.85	242.60	272.97	182.44	253.54
Costs										
Labor	2124.	4336.	2347.	6172.	4995.	4771.	4412.	4847.	3056.	4552.
Materials	395.	1035.	534.	4133.	16041.	2645.	2980.	3483.	1383.	1947.
Equipment	425.	947.	467.	1306.	976.	1054.	983.	1051.	602.	989.
Totals	2944.	6319.	3347.	11610.	22012.	8470.	8375.	9381.	5041.	7488.
Total dollars for all years	84988.70									

Sub-Installation: 02
Area: 04

Area Totals F4C 6000000 to 6900000

Number of Facilities: 1
Total Square Footage: 14297

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	257.0	248.0	260.0	243.0	253.0	243.0	246.0	248.0	263.0	261.0
Equiv. Hours										
Labor	196.11	177.02	514.68	178.50	581.49	190.98	189.57	202.15	303.06	371.39
Materials	2313.92	1766.71	16334.87	1452.89	14061.82	1480.73	2304.21	1705.25	4079.35	2865.47
Equipment	196.11	177.02	514.68	178.50	581.49	190.98	189.57	202.15	303.06	371.39
Costs										
Labor	3238.	2939.	8145.	2957.	9554.	3184.	3137.	3379.	5026.	6129.
Materials	2314.	1767.	16335.	1453.	14062.	1481.	2304.	1705.	4079.	2865.
Equipment	628.	568.	1604.	571.	1862.	613.	607.	648.	971.	1188.
Totals	6179.	5274.	26084.	4981.	25478.	5278.	6048.	5733.	10076.	10183.
Total dollars for all years	105313.33									

ORGANIZATIONAL SUMMARY REPORT

Date: 5/JUN/87 Page: 3

Installation: Funding Reporting System Demo
Sub-Installation: 01

Sub-Installation Totals F4C 6000000 to 69000000

Number of Facilities: 16
Total Square Footage: 89657

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	2533.0	2541.0	2534.0	2559.0	2549.0	2495.0	2603.0	2565.0	2633.0	2520.0
Equiv. Hours										
Labor	2591.56	3332.63	3267.65	2765.27	2260.57	2599.41	3362.76	2710.66	3384.37	3945.74
Materials	38469.14	63145.31	68957.89	38562.98	26091.74	33360.26	47735.70	30031.57	49381.30	65838.33
Equipment	2591.56	3332.63	3267.65	2765.27	2260.57	2599.41	3362.76	2710.66	3384.37	3945.74
Costs										
Labor	42305.	54584.	53631.	45194.	37572.	42913.	56047.	45060.	56293.	65617.
Materials	38469.	63145.	68958.	38563.	26092.	33360.	47736.	30032.	49381.	65838.
Equipment	8632.	11024.	10825.	9195.	7778.	8700.	11486.	9227.	11546.	13344.
Totals	89406.	128754.	133414.	92952.	71442.	84973.	115269.	84319.	117221.	144800.

Total dollars for all years 1062548.62

Sub-Installation: 02

Sub-Installation Totals F4C 6000000 to 69000000

Number of Facilities: 3
Total Square Footage: 19677

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	451.0	465.0	474.0	460.0	478.0	467.0	475.0	479.0	489.0	492.0
Equiv. Hours										
Labor	322.99	417.37	654.80	530.99	880.64	455.83	432.17	475.12	485.49	624.93
Materials	2709.41	2802.14	16868.52	5585.44	30103.11	4125.77	5283.91	5188.08	5462.53	4812.88
Equipment	322.99	417.37	654.80	530.99	880.64	455.83	432.17	475.12	485.49	624.93
Costs										
Labor	5362.	7275.	10491.	9129.	14549.	7956.	7549.	8226.	8082.	10681.
Materials	2709.	2802.	16869.	5585.	30103.	4126.	5284.	5188.	5463.	4813.
Equipment	1052.	1515.	2071.	1877.	2838.	1666.	1590.	1700.	1573.	2178.
Totals	9123.	11592.	29431.	16592.	47490.	13748.	14422.	15114.	15118.	17672.

Total dollars for all years 190302.03

Number of Facilities: 19
 Total Square Footage: 109334

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	2984.0	3006.0	3008.0	3019.0	3027.0	2962.0	3078.0	3044.0	3122.0	3012.0
Equiv. Hours										
Labor	2914.55	3750.00	3922.45	3296.25	3141.22	3055.24	3794.93	3185.78	3869.87	4570.67
Materials	41178.55	65947.44	85826.41	44148.42	56194.85	37486.03	53019.61	35219.65	54843.82	70651.21
Equipment	2914.55	3750.00	3922.45	3296.25	3141.22	3055.24	3794.93	3185.78	3869.87	4570.67
Costs										
Labor	47667.	61859.	64123.	54323.	52121.	50869.	63596.	53286.	64375.	76298.
Materials	41179.	65947.	85826.	44148.	56195.	37486.	53020.	35220.	54844.	70651.
Equipment	9684.	12539.	12896.	11072.	10617.	10367.	13075.	10927.	13119.	15522.
Totals	98529.	140346.	162845.	109544.	118932.	98721.	129691.	99433.	132338.	162471.
Total dollars for all years	1252850.65									

6/05/87 13:06:41

INSTALLATION: Funding Reporting System Demo

** FACILITY TASK COST REPORT **

FACILITY ID: P08901

Page 1

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
	OCC	COST \$	OCC	COST \$	OCC	COST \$	OCC	COST \$	OCC	COST \$
0000000 TOTAL RESOURCE FOR FACILITY										
82 36097 82 7921 59 33677										
0500000 INTERIOR CONSTRUCTION										
59 2765 58 2660 36 345										
0530000 INTERIOR DOORS										
59 2765 58 2660 36 345										
0533000 WOOD DOORS										
59 2765 58 2660 36 345										
0533100 HOLLOW-CORE										
59 2765 58 2660 36 345										
0533102 REPAIR										
23 2420 22 2314 0 0										
0533104 REFINISH										
36 345 36 345										
0533105 REPLACE										
0 0 0 0 0 0										
0533106 REFINISH REPLCD. WOOD (HOL-COR) INT. DR.										
0 0 0 0 0 0										
0600000 INTERIOR FINISHES										
23 3332 24 5262 23 3332 20 3748										
0610000 WALL FINISHES										
23 3332 24 5262 23 3332 20 3748										
0611000 GYPSUM & PLASTER PRODUCTS										
22 4505 24 5262 22 4505 20 3748										
0611100 PLASTER										
12 3255 14 4012 12 3255 10 2498										
0611102 REPAIR										
1 579 2 1158 1 579 0 0										
0611103 REFINISH REPAIRED PLASTER WALL FIN.										
1 178 2 356 1 178 0 0										
0611104 REFINISH										
10 2498 10 2498 10 2498 10 2498										
0611105 REPLACE										
0 0 0 0 0 0										
0611106 REFINISH REPLACED PLASTER WALL FIN.										
0 0 0 0 0 0										
0611300 SHEETROCK (UNSTIPPLED)										
10 1249 10 1249 10 1249 10 1249										
0611302 REPAIR										
0 0 0 0 0 0										
0611303 REFIN-REPRD. SHEETROCK (UNSTIPPLED) WALL										
0 0 0 0 0 0										
0611304 REFINISH										
10 1249 10 1249 10 1249 10 1249										
0611305 REPLACE										
0 0 0 0 0 0										
0611306 REFIN-REPLD. SHEETROCK (UNSTIPPLED) WALL										
0 0 0 0 0 0										
0612000 MASONRY & TILE PRODUCTS										
1 28827 0 0 1 28827 0 0										
0612800 TILE										
1 28827 0 0 1 28827 0 0										
0612802 REPAIR										
0 0 0 0 0 0										

6/05/87 13:06:41

INSTALLATION: Funding Reporting System Demo

** FACILITY TASK COST REPORT **

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0612805 REPLACE

1 28827 0 0 1 28827 0 0 1 28827 0 0 1 28827 0 0 1 28827 0 0

		Quantity	Units	SCHEDULED DATES	
				Last	Next
1	0500000 INTERIOR CONSTRUCTION				
2	0530000 INTERIOR DOORS				
3	0533000 WOOD DOORS				
4	0533100 HOLLOW-CORE	18.0	0	0	0
5	0533102 REPAIR	.0	1	0	0
5	0533104 REFINISH	.0	1	1983 C	0
5	0533105 REPLACE	.0	1	0	0
5	0533106 REFINISH REPLCD. WOOD (HOL-COR	.0	1	1973 C	0
1	0600000 INTERIOR FINISHES				
2	0610000 WALL FINISHES				
3	0611000 GYPSUM & PLASTER PRODUCTS				
4	0611100 PLASTER	2600.0	1	0	0
5	0611102 REPAIR	.0	2	1963 C	0
5	0611103 REFINISH REPAIRED PLASTER WALL	.0	2	1963 C	0
5	0611104 REFINISH	.0	2	1984 C	0
5	0611105 REPLACE	.0	2	0	0
5	0611106 REFINISH REPLACED PLASTER WALL	.0	2	0	0
5	0611300 SHEETROCK (UNSTIPPLED)	1300.0	2	1936 U	0
4	0611302 REPAIR	.0	2	1976 C	0
5	0611303 REFIN.REPRD. SHEETROCK (UNSTIP	.0	2	1976 C	0
5	0611304 REFINISH	.0	2	1985 C	0
5	0611305 REPLACE	.0	2	1936 U	0
5	0611306 REFIN.RPLD. SHEETROCK (UNSTIPP	.0	2	1936 U	0
3	0612000 MASONRY & TILE PRODUCTS				
4	0612800 TILE	1090.0	2	0	1990 U
5	0612802 REPAIR	.0	2	0	1990 U
5	0612805 REPLACE	.0	2	0	1990 U

***** Finished *****

ORDERED YEARLY TASK REPORT

CURRENT DATE: 6/ 5/87

REPORT YEAR: 1986

INSTALLATION: Funding Reporting System Demo
 FACILITY ID : P08901 F4C CODE : 7112900
 NUMBER OF FACILITIES IN GROUP: 10

COMPONENT CODE	COMPONENT DESCRIPTION	NUMBER OF OCCURRENCES	DOLLAR AMOUNT	DOLLAR PER SQFT	PERCENT OF TOTAL
000000	TOTAL DOLLAR AMOUNT FOR YEAR		36097.		
0612800	TILE	1.0	28827.	1.44	79.86
0611100	PLASTER	12.0	3255.	.16	9.02
0533100	HOLLOW-CORE	59.0	2765.	.14	7.66
0611300	SHEETROCK (UNSTIPPLED)	10.0	1269.	.06	3.46

ORDERED YEARLY TASK REPORT

CURRENT DATE: 6/ 5/87

REPORT YEAR: 1986

INSTALLATION: Funding Reporting System Demo
 FACILITY ID : P08901 F4C CODE : 7112900
 NUMBER OF FACILITIES IN GROUP: 10

TASK CODE	TASK DESCRIPTION	NUMBER OF OCCURRENCES	DOLLAR AMOUNT	DOLLAR PER SOFT	PERCENT OF TOTAL
0000000	TOTAL DOLLAR AMOUNT FOR YEAR		36097.		
0612805	REPLACE	1.0	28827.	1.44	79.86
0611104	REFINISH	10.0	2498.	.12	6.92
0533102	REPAIR	23.0	2420.	.12	6.70
0611304	REFINISH	10.0	1249.	.06	3.46

ORGANIZATION : Z1 UP-TO-DATE INSTALLATION REPORT
 APPROPRIATION : 01 Real Property Maintenance Acco
 AMS : 07 ADMINISTRATION
 0000000 TOTAL RESOURCE FOR FACILITY

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	135.0	152.0	163.0	156.0	164.0	163.0	180.0	161.0	174.0	163.0
Hours										
Labor	103.02	115.73	335.42	118.22	227.93	120.87	183.51	123.38	200.90	128.04
Equipment	103.02	115.73	335.42	118.22	227.93	120.87	183.51	123.38	200.90	128.04
Costs										
Labor	1633.	1911.	5490.	1952.	4082.	1991.	3053.	2034.	3297.	2107.
Materials	711.	230.	6989.	256.	1981.	303.	11753.	788.	553.	638.
Equipment	330.	398.	1100.	406.	928.	414.	614.	422.	670.	437.
Totals	2673.	2539.	13579.	2614.	6990.	2707.	15420.	3244.	4520.	3183.
Total dollars for all years	57468.									

0300000 ROOFING

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	3.0	4.0	3.0	4.0	1.0	3.0	3.0	4.0	3.0	4.0
Hours										
Labor	6.26	6.87	6.26	8.40	106.90	6.26	6.26	6.87	6.26	8.40
Equipment	6.26	6.87	6.26	8.40	106.90	6.26	6.26	6.87	6.26	8.40
Costs										
Labor	102.	112.	102.	137.	2097.	102.	102.	112.	102.	137.
Materials	49.	49.	49.	73.	1659.	49.	49.	49.	49.	73.
Equipment	20.	22.	20.	27.	513.	20.	20.	22.	20.	27.
Totals	172.	183.	172.	237.	4269.	172.	172.	183.	172.	237.
Total dollars for all years	5968.									

0400000 EXTERIOR CLOSURE

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	40.0	54.0	56.0	56.0	55.0	57.0	55.0	54.0	59.0	54.0
Hours										
Labor	.97	18.00	17.75	20.11	18.85	19.73	18.85	18.00	77.40	18.00
Equipment	.97	18.00	17.75	20.11	18.85	19.73	18.85	18.00	77.40	18.00
Costs										
Labor	16.	354.	349.	389.	368.	382.	368.	354.	1324.	354.
Materials	6.	12.	17.	23.	62.	24.	62.	12.	127.	12.
Equipment	3.	85.	84.	92.	88.	90.	88.	85.	275.	85.
Totals	24.	451.	449.	503.	518.	495.	518.	451.	1726.	451.
Total dollars for all years	5586.									

ORGANIZATION : Z1 UP-TO-DATE INSTALLATION REPORT
 APPROPRIATION : 01 Real Property Maintenance Acco
 AMS : 07 ADMINISTRATION
 0500000 INTERIOR CONSTRUCTION

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	2.0	1.0	1.0	3.0	1.0	2.0	6.0	2.0	2.0	1.0
Hours										
Labor	.53	.26	.26	1.52	.26	.53	1.84	1.30	1.30	.26
Equipment	.53	.26	.26	1.52	.26	.53	1.84	1.30	1.30	.26
Costs										
Labor	9.	4.	4.	25.	4.	9.	30.	21.	21.	4.
Materials	9.	4.	4.	11.	4.	9.	93.	89.	89.	4.
Equipment	2.	1.	1.	5.	1.	4.	6.	4.	4.	1.
Totals	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years	19.	10.	10.	41.	10.	19.	129.	115.	115.	10.

0600000 INTERIOR FINISHES

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	3.0	3.0	4.0	3.0	3.0	3.0	6.0	3.0	5.0	3.0
Hours										
Labor	28.24	28.24	236.74	28.24	28.24	28.24	44.08	28.24	45.85	28.24
Equipment	28.24	28.24	236.74	28.24	28.24	28.24	44.08	28.24	45.85	28.24
Costs										
Labor	467.	467.	3876.	467.	467.	467.	726.	467.	755.	467.
Materials	114.	114.	6529.	114.	114.	114.	265.	114.	168.	114.
Equipment	90.	90.	758.	90.	90.	90.	141.	90.	147.	90.
Totals	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years	671.	671.	11162.	671.	671.	671.	1132.	671.	1069.	671.

0800000 PLUMBING

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	12.0	10.0	14.0	10.0	21.0	17.0	23.0	12.0	19.0	14.0
Hours										
Labor	14.36	8.73	11.38	7.17	17.88	12.27	17.22	9.75	13.12	9.36
Equipment	14.36	8.73	11.38	7.17	17.88	12.27	17.22	9.75	13.12	9.36
Costs										
Labor	217.	132.	172.	108.	270.	185.	260.	147.	198.	141.
Materials	533.	4.	6.	3.	90.	62.	760.	48.	9.	5.
Equipment	46.	28.	36.	23.	57.	39.	55.	31.	42.	30.
Totals	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years	796.	164.	215.	135.	418.	286.	1076.	227.	249.	176.

ORGANIZATION : Z1 UP-TO-DATE INSTALLATION REPORT
 APPROPRIATION 01 Real Property Maintenance Acco
 AMS : 07 ADMINISTRATION
 0900000 HEATING, VENTILATION AND AIRCONDITIONING

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	57.0	56.0	58.0	56.0	57.0	56.0	57.0	56.0	57.0	57.0
Hours										
Labor	45.04	43.47	51.77	43.47	45.04	43.47	45.04	46.42	45.04	50.19
Equipment	45.04	43.47	51.77	43.47	45.04	43.47	45.04	46.42	45.04	50.19
Costs										
Labor	690.	666.	793.	666.	690.	666.	690.	711.	690.	769.
Materials	0.	0.	301.	0.	0.	0.	0.	295.	0.	301.
Equipment	144.	139.	166.	139.	144.	139.	144.	149.	144.	161.
Totals	834.	805.	1260.	805.	834.	805.	834.	1155.	834.	1231.
Total dollars for all years			9397.							

1100000 INTERIOR ELECTRICAL

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	18.0	24.0	26.0	24.0	26.0	25.0	29.0	29.0	29.0	29.0
Hours										
Labor	7.61	10.15	10.95	9.30	10.75	10.37	49.64	12.48	11.92	13.02
Equipment	7.61	10.15	10.95	9.30	10.75	10.37	49.64	12.48	11.92	13.02
Costs										
Labor	132.	176.	189.	160.	185.	180.	866.	216.	206.	225.
Materials	1.	46.	44.	32.	51.	46.	10522.	142.	111.	128.
Equipment	24.	32.	35.	30.	34.	33.	159.	40.	38.	42.
Totals	157.	254.	268.	222.	271.	259.	11548.	398.	355.	394.
Total dollars for all years			14125.							

1200000 SPECIAL INTERIOR ELECTRICAL SYSTEM

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	.0	.0	1.0	.0	.0	.0	1.0	1.0	.0	1.0
Hours										
Labor	.00	.00	.31	.00	.00	.00	.57	.31	.00	.57
Equipment	.00	.00	.31	.00	.00	.00	.57	.31	.00	.57
Costs										
Labor	0.	0.	5.	0.	0.	0.	10.	5.	0.	10.
Materials	0.	0.	38.	0.	0.	0.	1.	38.	0.	1.
Equipment	0.	0.	1.	0.	0.	0.	2.	1.	0.	2.
Totals	0.	0.	44.	0.	0.	0.	13.	44.	0.	13.
Total dollars for all years			114.							

TOTAL RESOURCE FOR FACILITY											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	82.0	82.0	59.0	56.0	82.0	80.0	84.0	118.0	118.0	82.0	
Hours											
Labor	1679.48	257.02	1655.72	167.36	1679.48	206.27	1695.65	290.23	1712.69	280.70	
Equipment	1679.48	257.02	1655.72	167.36	1679.48	206.27	1695.65	290.23	1712.69	280.70	
Costs											
Labor	26544.	4232.	26155.	2767.	26544.	3403.	26809.	4777.	27089.	4619.	
Materials	4179.	2866.	2224.	791.	4179.	2669.	4186.	3750.	5062.	3593.	
Equipment	5374.	822.	5298.	536.	5374.	660.	5426.	929.	5481.	898.	
Totals	36097.	7921.	33677.	4093.	36097.	6732.	36421.	9456.	37631.	9110.	
Total dollars for all years		217236.									

INTERIOR CONSTRUCTION											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	59.0	58.0	36.0	36.0	59.0	58.0	59.0	94.0	95.0	58.0	
Hours											
Labor	33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23	
Equipment	33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23	
Costs											
Labor	546.	529.	158.	158.	546.	529.	546.	1356.	1373.	1198.	
Materials	2112.	2027.	157.	157.	2112.	2027.	2112.	3006.	3091.	2849.	
Equipment	107.	103.	31.	31.	107.	103.	107.	265.	268.	234.	
Totals	2765.	2660.	345.	345.	2765.	2660.	2765.	4626.	4732.	4281.	
Total dollars for all years		27944.									

INTERIOR DOORS											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	59.0	58.0	36.0	36.0	59.0	58.0	59.0	94.0	95.0	58.0	
Hours											
Labor	33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23	
Equipment	33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23	
Costs											
Labor	546.	529.	158.	158.	546.	529.	546.	1356.	1373.	1198.	
Materials	2112.	2027.	157.	157.	2112.	2027.	2112.	3006.	3091.	2849.	
Equipment	107.	103.	31.	31.	107.	103.	107.	265.	268.	234.	
Totals	2765.	2660.	345.	345.	2765.	2660.	2765.	4626.	4732.	4281.	
Total dollars for all years		27944.									

INSTALLATION: Funding Reporting System Demo
 RESOURCE SUMMARY REPORT
 FACILITY ID: P08901

DATE: 06/08/87

PAGE 2

REPORT NAME: RSMY1038.XDB

0533000 WOOD DOORS		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	Hours	59.0	58.0	36.0	36.0	59.0	58.0	59.0	94.0	95.0	58.0
Labor		33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23
Equipment		33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23
Costs											
Labor		546.	529.	158.	158.	546.	529.	546.	1356.	1373.	1198.
Materials		2112.	2027.	157.	157.	2112.	2027.	2112.	3006.	3091.	2849.
Equipment		107.	103.	31.	31.	107.	103.	107.	265.	268.	234.
Totals		2765.	2660.	345.	345.	2765.	2660.	2765.	4626.	4732.	4281.
Total dollars for all years		27944.									

0533100 WOLLOW-CORE		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	Hours	59.0	58.0	36.0	36.0	59.0	58.0	59.0	94.0	95.0	58.0
Labor		33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23
Equipment		33.30	32.26	9.53	9.53	33.30	32.26	33.30	82.77	83.80	73.23
Costs											
Labor		546.	529.	158.	158.	546.	529.	546.	1356.	1373.	1198.
Materials		2112.	2027.	157.	157.	2112.	2027.	2112.	3006.	3091.	2849.
Equipment		107.	103.	31.	31.	107.	103.	107.	265.	268.	234.
Totals		2765.	2660.	345.	345.	2765.	2660.	2765.	4626.	4732.	4281.
Total dollars for all years		27944.									

0533102 REPAIR		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	Hours	23.0	22.0	.0	.0	23.0	22.0	23.0	22.0	23.0	22.0
Labor		23.76	22.73	.00	.00	23.76	22.73	23.76	22.73	23.76	22.73
Equipment		23.76	22.73	.00	.00	23.76	22.73	23.76	22.73	23.76	22.73
Costs											
Labor		389.	372.	0.	0.	389.	372.	389.	372.	389.	372.
Materials		1955.	1870.	0.	0.	1955.	1870.	1955.	1870.	1955.	1870.
Equipment		76.	73.	0.	0.	76.	73.	76.	73.	76.	73.
Totals		2420.	2314.	0.	0.	2420.	2314.	2420.	2314.	2420.	2314.
Total dollars for all years		18936.									

INSTALLATION: Funding Reporting System Demo
 REPORT NAME: RSMY1038.XDB
 FACILITY ID: P08901

RESOURCE SUMMARY REPORT

DATE: 06/08/87

PAGE 3

0533104 REFINISH

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
Hours	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53
Equipment	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53	9.53
Costs	158.	158.	158.	158.	158.	158.	158.	158.	158.	158.
Labor	157.	157.	157.	157.	157.	157.	157.	157.	157.	157.
Materials	31.	31.	31.	31.	31.	31.	31.	31.	31.	31.
Equipment	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Totals	345.	345.	345.	345.	345.	345.	345.	345.	345.	345.
Total dollars for all years	3108.									

0533105 REPLACE

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hours	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Equipment	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Costs	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Labor	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Materials	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Equipment	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Totals	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Total dollars for all years	5382.									

0533106 REFINISH REPLCD. WOOD (HOL-COR) INT. DR

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hours	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Equipment	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Costs	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Labor	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Materials	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Equipment	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Totals	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Total dollars for all years	518.									

INSTALLATION: Funding Reporting System Demo
 RESOURCE SUMMARY REPORT
 FACILITY ID: P08901

DATE: 06/08/87

PAGE 4

REPORT NAME: RSMY1038.XDB

0600000 INTERIOR FINISHES
 1986

Occurrences	23.0	24.0	23.0	20.0	23.0	22.0	25.0	24.0	23.0	1995
Hours										
Labor	1646.18	224.75	1646.18	157.83	1646.18	174.00	1662.36	207.46	1628.89	207.46
Equipment	1646.18	224.75	1646.18	157.83	1646.18	174.00	1662.36	207.46	1628.89	207.46
Costs										
Labor	25998.	3703.	25998.	2609.	25998.	2874.	26263.	3421.	25716.	3421.
Materials	2066.	839.	2066.	634.	2066.	641.	2074.	744.	1971.	744.
Equipment	5268.	719.	5268.	505.	5268.	557.	5320.	664.	5212.	664.
Totals	33332.	5262.	33332.	3748.	33332.	4072.	33657.	4829.	32900.	4829.
Total dollars for all years		189292.								

0610000 WALL FINISHES
 1986

Occurrences	23.0	24.0	23.0	20.0	23.0	22.0	25.0	24.0	23.0	1995
Hours										
Labor	1646.18	224.75	1646.18	157.83	1646.18	174.00	1662.36	207.46	1628.89	207.46
Equipment	1646.18	224.75	1646.18	157.83	1646.18	174.00	1662.36	207.46	1628.89	207.46
Costs										
Labor	25998.	3703.	25998.	2609.	25998.	2874.	26263.	3421.	25716.	3421.
Materials	2066.	839.	2066.	634.	2066.	641.	2074.	744.	1971.	744.
Equipment	5268.	719.	5268.	505.	5268.	557.	5320.	664.	5212.	664.
Totals	33332.	5262.	33332.	3748.	33332.	4072.	33657.	4829.	32900.	4829.
Total dollars for all years		189292.								

0611000 GYPSUM & PLASTER PRODUCTS
 1986

Occurrences	22.0	24.0	22.0	20.0	22.0	22.0	24.0	24.0	22.0	1995
Hours										
Labor	191.29	224.75	191.29	157.83	191.29	174.00	207.46	207.46	174.00	207.46
Equipment	191.29	224.75	191.29	157.83	191.29	174.00	207.46	207.46	174.00	207.46
Costs										
Labor	3156.	3703.	3156.	2609.	3156.	2874.	3421.	3421.	2874.	3421.
Materials	737.	839.	737.	634.	737.	641.	744.	744.	641.	744.
Equipment	612.	719.	612.	505.	612.	557.	664.	664.	557.	664.
Totals	4505.	5262.	4505.	3748.	4505.	4072.	4829.	4829.	4072.	4829.
Total dollars for all years		45156.								

RESOURCE SUMMARY REPORT											
INSTALLATION: Funding Reporting System Demo											
FACILITY ID: P08901											
REPORT NAME: RSMY1038.XDB											
DATE: 06/08/87											
PAGE 5											
0611100	PLASTER	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences		12.0	14.0	12.0	10.0	12.0	10.0	12.0	12.0	10.0	12.0
Hours											
Labor		138.68	172.14	138.68	105.22	138.68	105.22	138.68	138.68	105.22	138.68
Equipment		138.68	172.14	138.68	105.22	138.68	105.22	138.68	138.68	105.22	138.68
Costs											
Labor		2286.	2833.	2286.	1739.	2286.	1739.	2286.	2286.	1739.	2286.
Materials		525.	628.	525.	422.	525.	422.	525.	525.	422.	525.
Equipment		444.	551.	444.	337.	444.	337.	444.	444.	337.	444.
Totals		*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years		3255.	4012.	3255.	2498.	3255.	2498.	3255.	3255.	2498.	3255.
Total dollars for all years 31040.											
0611102	REPAIR	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences		1.0	2.0	1.0	.0	1.0	.0	1.0	1.0	.0	1.0
Hours											
Labor		24.54	49.08	24.54	.00	24.54	.00	24.54	24.54	.00	24.54
Equipment		24.54	49.08	24.54	.00	24.54	.00	24.54	24.54	.00	24.54
Costs											
Labor		401.	802.	401.	0.	401.	0.	401.	401.	0.	401.
Materials		99.	199.	99.	0.	99.	0.	99.	99.	0.	99.
Equipment		79.	157.	79.	0.	79.	0.	79.	79.	0.	79.
Totals		*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years		579.	1158.	579.	0.	579.	0.	579.	579.	0.	579.
Total dollars for all years 4632.											
0611103	REFINISH REPAIRED PLASTER WALL FIN.	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences		1.0	2.0	1.0	.0	1.0	.0	1.0	1.0	.0	1.0
Hours											
Labor		8.92	17.85	8.92	.00	8.92	.00	8.92	8.92	.00	8.92
Equipment		8.92	17.85	8.92	.00	8.92	.00	8.92	8.92	.00	8.92
Costs											
Labor		146.	292.	146.	0.	146.	0.	146.	146.	0.	146.
Materials		3.	7.	3.	0.	3.	0.	3.	3.	0.	3.
Equipment		29.	57.	29.	0.	29.	0.	29.	29.	0.	29.
Totals		*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years		178.	356.	178.	0.	178.	0.	178.	178.	0.	178.
Total dollars for all years 1423.											

0611104 REFINISH												
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995		
Occurrences	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		
Hours												
Labor	105.22	105.22	105.22	105.22	105.22	105.22	105.22	105.22	105.22	105.22		
Equipment	105.22	105.22	105.22	105.22	105.22	105.22	105.22	105.22	105.22	105.22		
Costs												
Labor	1739.	1739.	1739.	1739.	1739.	1739.	1739.	1739.	1739.	1739.		
Materials	422.	422.	422.	422.	422.	422.	422.	422.	422.	422.		
Equipment	337.	337.	337.	337.	337.	337.	337.	337.	337.	337.		
Totals	2498.	2498.	2498.	2498.	2498.	2498.	2498.	2498.	2498.	2498.		
Total dollars for all years	24985.											

0611105 REPLACE												
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995		
Occurrences	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Hours												
Labor	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
Equipment	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
Costs												
Labor	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Materials	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Equipment	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Totals	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Total dollars for all years	0.											

0611106 REFINISH REPLACED PLASTER WALL FIN.												
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995		
Occurrences	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Hours												
Labor	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
Equipment	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
Costs												
Labor	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Materials	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Equipment	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Totals	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
Total dollars for all years	0.											

INSTALLATION: Funding Reporting System Demo
 REPORT NAME: RSMY1038.XDB
 FACILITY ID: P08901

DATE: 06/08/87
 PAGE 7

RESOURCE SUMMARY REPORT

0611300 SHEETROCK (UNSTIPPLED)											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	10.0	10.0	10.0	10.0	10.0	12.0	12.0	12.0	12.0	12.0	
Hours											
Labor	52.61	52.61	52.61	52.61	52.61	68.78	68.78	68.78	68.78	68.78	
Equipment	52.61	52.61	52.61	52.61	52.61	68.78	68.78	68.78	68.78	68.78	
Costs											
Labor	870.	870.	870.	870.	870.	1135.	1135.	1135.	1135.	1135.	
Materials	211.	211.	211.	211.	211.	219.	219.	219.	219.	219.	
Equipment	168.	168.	168.	168.	168.	220.	220.	220.	220.	220.	
Totals	1249.	1249.	1249.	1249.	1249.	1574.	1574.	1574.	1574.	1574.	
Total dollars for all years		14116.									

0611302 REPAIR											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	.0	.0	.0	.0	.0	1.0	1.0	1.0	1.0	1.0	
Hours											
Labor	.00	.00	.00	.00	.00	11.71	11.71	11.71	11.71	11.71	
Equipment	.00	.00	.00	.00	.00	11.71	11.71	11.71	11.71	11.71	
Costs											
Labor	0.	0.	0.	0.	0.	191.	191.	191.	191.	191.	
Materials	0.	0.	0.	0.	0.	6.	6.	6.	6.	6.	
Equipment	0.	0.	0.	0.	0.	37.	37.	37.	37.	37.	
Totals	0.	0.	0.	0.	0.	235.	235.	235.	235.	235.	
Total dollars for all years		1175.									

0611303 REFIN.REPRD. SHEETROCK (UNSTIPPLED) WALL											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	.0	.0	.0	.0	.0	1.0	1.0	1.0	1.0	1.0	
Hours											
Labor	.00	.00	.00	.00	.00	4.46	4.46	4.46	4.46	4.46	
Equipment	.00	.00	.00	.00	.00	4.46	4.46	4.46	4.46	4.46	
Costs											
Labor	0.	0.	0.	0.	0.	74.	74.	74.	74.	74.	
Materials	0.	0.	0.	0.	0.	2.	2.	2.	2.	2.	
Equipment	0.	0.	0.	0.	0.	14.	14.	14.	14.	14.	
Totals	0.	0.	0.	0.	0.	90.	90.	90.	90.	90.	
Total dollars for all years		449.									

0611304	REFINISH	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Hours											
Labor	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61
Equipment	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61	52.61
Costs											
Labor	870.	870.	870.	870.	870.	870.	870.	870.	870.	870.	870.
Materials	211.	211.	211.	211.	211.	211.	211.	211.	211.	211.	211.
Equipment	168.	168.	168.	168.	168.	168.	168.	168.	168.	168.	168.
Totals	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.
Total dollars for all years	12492.										

0611305	REPLACE	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hours											
Labor	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Equipment	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Costs											
Labor	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Materials	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Equipment	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Totals	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Total dollars for all years	0.										

0611306	REFIN.RPLD. SHEETROCK (UNSTIPPLED) WALL	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Hours											
Labor	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Equipment	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Costs											
Labor	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Materials	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Equipment	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Totals	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Total dollars for all years	0.										

INSTALLATION: Funding Reporting System Demo
 REPORT NAME: RSMY1038.XDB
 FACILITY ID: P08901

DATE: 06/08/87
 PAGE 9

RESOURCE SUMMARY REPORT											
0612000 MASONRY & TILE PRODUCTS											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	1.0	.0	1.0	.0	1.0	.0	1.0	.0	1.0	.0	
Hours											
Labor	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	
Equipment	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	
Costs											
Labor	22842.	0.	22842.	0.	22842.	0.	22842.	0.	22842.	0.	
Materials	1330.	0.	1330.	0.	1330.	0.	1330.	0.	1330.	0.	
Equipment	4656.	0.	4656.	0.	4656.	0.	4656.	0.	4656.	0.	
Totals	28827.	0.	28827.	0.	28827.	0.	28827.	0.	28827.	0.	
Total dollars for all years	144136.										
0612800 TILE											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	1.0	.0	1.0	.0	1.0	.0	1.0	.0	1.0	.0	
Hours											
Labor	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	
Equipment	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	
Costs											
Labor	22842.	0.	22842.	0.	22842.	0.	22842.	0.	22842.	0.	
Materials	1330.	0.	1330.	0.	1330.	0.	1330.	0.	1330.	0.	
Equipment	4656.	0.	4656.	0.	4656.	0.	4656.	0.	4656.	0.	
Totals	28827.	0.	28827.	0.	28827.	0.	28827.	0.	28827.	0.	
Total dollars for all years	144136.										
0612802 REPAIR											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Occurrences	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Hours											
Labor	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Equipment	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Costs											
Labor	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
Materials	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
Equipment	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
Totals	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
Total dollars for all years	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	

INSTALLATION: Funding Reporting System Demo RESOURCE SUMMARY REPORT DATE: 06/08/87 PAGE 10

REPORT NAME: RSMY1038.XDB

0612805 REPLACE	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	1.0	.0	1.0	.0	1.0	.0	1.0	.0	1.0	.0
Hours										
Labor	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00
Equipment	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00	1454.89	.00
Costs										
Labor	22842.	0.	22842.	0.	22842.	0.	22842.	0.	22842.	0.
Materials	1330.	0.	1330.	0.	1330.	0.	1330.	0.	1330.	0.
Equipment	4656.	0.	4656.	0.	4656.	0.	4656.	0.	4656.	0.
Totals	28827.	0.	28827.	0.	28827.	0.	28827.	0.	28827.	0.
Total dollars for all years	144136.									

ORGANIZATION: Z1 UP-TO-DATE INSTALLATION REPORT
 APPROPRIATION NO: 01 Real Property Maintenance Acco
 AMS NO: 07 ADMINISTRATION

PAGE 1

REPORT NAME: ROZ10107.XDB

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
0000000										
Occurrences	135.0	152.0	163.0	156.0	164.0	163.0	180.0	161.0	174.0	163.0
Equiv. Hours										
Labor	103.02	115.73	335.42	118.22	227.93	120.87	183.51	123.38	200.90	128.04
Materials	710.78	229.98	6988.62	255.90	1980.60	302.72	11752.96	788.23	553.49	638.26
Equipment	103.02	115.73	335.42	118.22	227.93	120.87	183.51	123.38	200.90	128.04
Costs										
Labor	1633.	1911.	5490.	1952.	4082.	1991.	3053.	2034.	3297.	2107.
Materials	711.	230.	6989.	256.	1981.	303.	11753.	788.	553.	638.
Equipment	330.	398.	1100.	406.	928.	414.	614.	422.	670.	437.
Totals	2673.	2539.	13579.	2614.	6990.	2707.	15420.	3244.	4520.	3183.
Total dollars for all years		57468.								

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
0300000										
Occurrences	3.0	4.0	3.0	4.0	1.0	3.0	3.0	4.0	3.0	4.0
Equiv. Hours										
Labor	6.26	6.87	6.26	8.40	106.90	6.26	6.26	6.87	6.26	8.40
Materials	49.09	49.09	49.09	73.28	1658.61	49.09	49.09	49.09	49.09	73.28
Equipment	6.26	6.87	6.26	8.40	106.90	6.26	6.26	6.87	6.26	8.40
Costs										
Labor	102.	112.	102.	137.	2097.	102.	102.	112.	102.	137.
Materials	49.	49.	49.	73.	1659.	49.	49.	49.	49.	73.
Equipment	20.	22.	20.	27.	513.	20.	20.	22.	20.	27.
Totals	172.	183.	172.	237.	4269.	172.	172.	183.	172.	237.
Total dollars for all years		5968.								

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
0400000										
Occurrences	40.0	54.0	56.0	56.0	55.0	57.0	55.0	54.0	59.0	54.0
Equiv. Hours										
Labor	.97	18.00	17.75	20.11	18.85	19.73	18.85	18.00	77.40	18.00
Materials	5.52	12.41	16.93	22.93	62.41	23.65	62.41	12.41	127.36	12.41
Equipment	.97	18.00	17.75	20.11	18.85	19.73	18.85	18.00	77.40	18.00
Costs										
Labor	16.	354.	349.	389.	368.	382.	368.	354.	1324.	354.
Materials	6.	12.	17.	23.	62.	24.	62.	12.	127.	12.
Equipment	3.	85.	84.	92.	88.	90.	88.	85.	275.	85.
Totals	24.	451.	449.	503.	518.	495.	518.	451.	1726.	451.
Total dollars for all years		5586.								

ORGANIZATION: Z1 UP-TO-DATE INSTALLATION REPORT
 APPROPRIATION NO: 01 Real Property Maintenance Acco
 AMS NO: 07 ADMINISTRATION

PAGE 2

REPORT NAME: ROZ10107.XDB

0500000	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	2.0	1.0	1.0	3.0	1.0	2.0	6.0	2.0	2.0	1.0
Equiv. Hours										
Labor	.53	.26	.26	1.52	.26	.53	1.84	1.30	1.30	.26
Materials	8.73	4.37	4.37	10.72	4.37	8.73	92.89	89.37	89.37	4.37
Equipment	.53	.26	.26	1.52	.26	.53	1.84	1.30	1.30	.26
Costs										
Labor	9.	4.	4.	25.	4.	9.	30.	21.	21.	4.
Materials	9.	4.	4.	11.	4.	9.	93.	89.	89.	4.
Equipment	2.	1.	1.	5.	1.	2.	6.	4.	4.	1.
Totals	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years	19.	10.	10.	41.	10.	19.	129.	115.	115.	10.

0600000	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	3.0	3.0	4.0	3.0	3.0	3.0	6.0	3.0	5.0	3.0
Equiv. Hours										
Labor	28.24	28.24	236.74	28.24	28.24	28.24	44.08	28.24	45.85	28.24
Materials	113.82	113.82	6529.02	113.82	113.82	113.82	265.15	113.82	167.89	113.82
Equipment	28.24	28.24	236.74	28.24	28.24	28.24	44.08	28.24	45.85	28.24
Costs										
Labor	467.	467.	3876.	467.	467.	467.	726.	467.	755.	467.
Materials	114.	114.	6529.	114.	114.	114.	265.	114.	168.	114.
Equipment	90.	90.	758.	90.	90.	90.	141.	90.	147.	90.
Totals	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years	671.	671.	11162.	671.	671.	671.	1132.	671.	1069.	671.

0800000	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Occurrences	12.0	10.0	14.0	10.0	21.0	17.0	23.0	12.0	19.0	14.0
Equiv. Hours										
Labor	14.36	8.73	11.38	7.17	17.88	12.27	17.22	9.75	13.12	9.36
Materials	532.72	4.39	6.38	3.34	90.36	61.53	760.44	48.19	8.66	5.02
Equipment	14.36	8.73	11.38	7.17	17.88	12.27	17.22	9.75	13.12	9.36
Costs										
Labor	217.	132.	172.	108.	270.	185.	260.	147.	198.	141.
Materials	533.	4.	6.	3.	90.	62.	760.	48.	9.	5.
Equipment	46.	28.	36.	23.	57.	39.	55.	31.	42.	30.
Totals	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Total dollars for all years	796.	164.	215.	135.	418.	286.	1076.	227.	249.	176.

ORGANIZATION: Z1 UP-TO-DATE INSTALLATION REPORT
 APPROPRIATION NO: 01 Real Property Maintenance Acco
 AMS NO: 07 ADMINISTRATION
 REPORT NAME: ROZ10107.XDB

PAGE 3

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
0900000										
Occurrences	57.0	56.0	58.0	56.0	57.0	56.0	57.0	56.0	57.0	57.0
Equiv. Hours										
Labor	45.04	43.47	51.77	43.47	45.04	43.47	45.04	46.42	45.04	50.19
Materials	.00	.00	301.03	.00	.00	.00	.00	295.00	.00	301.03
Equipment	45.04	43.47	51.77	43.47	45.04	43.47	45.04	46.42	45.04	50.19
Costs										
Labor	690.	666.	793.	666.	690.	666.	690.	711.	690.	769.
Materials	0.	0.	301.	0.	0.	0.	0.	295.	0.	301.
Equipment	144.	139.	166.	139.	144.	139.	144.	149.	144.	161.
Totals	834.	805.	1260.	805.	834.	805.	834.	1155.	834.	1231.
Total dollars for all years			9397.							

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
1100000										
Occurrences	18.0	24.0	26.0	24.0	26.0	25.0	29.0	29.0	29.0	29.0
Equiv. Hours										
Labor	7.61	10.15	10.95	9.30	10.75	10.37	49.64	12.48	11.92	13.02
Materials	.90	45.90	43.80	31.80	51.03	45.90	10522.23	142.35	111.13	127.58
Equipment	7.61	10.15	10.95	9.30	10.75	10.37	49.64	12.48	11.92	13.02
Costs										
Labor	132.	176.	189.	160.	185.	180.	866.	216.	206.	225.
Materials	1.	46.	44.	32.	51.	46.	10522.	142.	111.	128.
Equipment	24.	32.	35.	30.	34.	33.	159.	40.	38.	42.
Totals	157.	254.	268.	222.	271.	259.	11548.	398.	355.	394.
Total dollars for all years		14125.								

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
1200000										
Occurrences	.0	.0	1.0	.0	.0	.0	1.0	1.0	.0	1.0
Equiv. Hours										
Labor	.00	.00	.31	.00	.00	.00	.57	.31	.00	.57
Materials	.00	.00	38.00	.00	.00	.00	.75	38.00	.00	.75
Equipment	.00	.00	.31	.00	.00	.00	.57	.31	.00	.57
Costs										
Labor	0.	0.	5.	0.	0.	0.	10.	5.	0.	10.
Materials	0.	0.	38.	0.	0.	0.	1.	38.	0.	1.
Equipment	0.	0.	1.	0.	0.	0.	2.	1.	0.	2.
Totals	0.	0.	44.	0.	0.	0.	13.	44.	0.	13.
Total dollars for all years		114.								

6/18/87 9:48:34 INSTALLATION: Funding Reporting System Demo												Page 1
FacilityID	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Costs in Dollars	
551308.	553301.	149427.	141473.	332306.	171451.	516093.	116124.	225706.	165442.			
629514.	631790.	170625.	161542.	379446.	195772.	589304.	132596.	257723.	188911.			
161038.	161621.	43648.	41325.	97068.	50081.	150752.	33920.	65929.	48326.			
280008.	281020.	75894.	71854.	168778.	87080.	262122.	58979.	114635.	84028.			
117119.	117542.	31744.	30054.	70595.	36423.	109638.	24669.	47949.	35146.			
177643.	178286.	48149.	45586.	107076.	55245.	166297.	37418.	72727.	53309.			
87839.	88157.	23808.	22541.	52946.	27317.	82229.	18502.	35961.	26360.			
104556.	162383.	36537.	71016.	52054.	121635.	87542.	112398.	125708.	125708.			
43225.	67132.	15105.	29359.	21520.	50286.	36192.	46467.	51970.	21003.			
36339.	71081.	17081.	51594.	16512.	132912.	15315.	46220.	29711.	21003.			
51406.	24163.	72986.	23358.	188020.	21665.	65383.	29711.	21003.	21003.			
71968.	33828.	102180.	32701.	263227.	30330.	91537.	41595.	30645.	30645.			
13151.	8907.	17312.	12690.	29652.	21341.	27400.	30645.	30645.	30645.			
25489.	39586.	17312.	12690.	29652.	21341.	27400.	30645.	30645.	30645.			
168199.	76462.	51788.	172459.	126412.	295386.	61944.	15918.	15918.	15918.			
253911.	131004.	394341.	88729.	172459.	126412.	295386.	61944.	15918.	15918.			
57623.	29730.	89492.	20136.	39138.	28688.	67035.	48246.	61944.	61944.			
17637.	44080.	17143.	17327.	20007.	18741.	19816.	17813.	18973.	18973.			
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82592.	121033.	100420.	84237.	60213.	68050.	80203.	76698.	107535.	134553.			
4140.	5182.	19415.	6101.	4239.	14216.	19645.	4377.	5163.	7064.			
2944.	6319.	3347.	11610.	22012.	8470.	8375.	9381.	5041.	7488.			
6179.	5274.	26084.	4981.	25478.	5278.	6048.	5733.	10076.	10183.			
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APPENDIX D:
ARMY-WIDE COMPONENT/TASK LISTING

Cases No : Unit of Measure : Description

0300000 ROOFING
 0310000 ROOFING
 0311000 ROOF COVERING
 0311100 2 BUILT-UP ROOFING
 0311101 2 DEBRIS REMOV BY HAND & VISUAL INSPECT.
 0311102 2 MOISTURE INSPECTION OF ROOF BUILDUP
 0311103 2 MINOR MEMBRANE REPAIRS - BUILT UP ROOF
 0311104 2 MINOR MEMBRANE REPLACEMENT - BUILTUP RF.
 0311105 2 FLASHING REPAIRS - BUILTUP ROOF
 0311106 2 PLACE NEW MEMBRANE OVER EXSTG. BUILTUP RF
 0311107 2 MEMBRANE REMOVAL & REPLACEMENT-BUILTUP RF.
 0311200 2 SINGLE PLY ROOFING
 0311210 2 MOD. BITUMINOUS / THERMOPLASTIC
 0311211 2 DEBRIS REMOVAL-HAND & VIS. INSPCT-M.B./T.
 0311212 2 MOISTURE INSPECTION - M.B. /THERMOPL.
 0311213 2 MINOR MEMBRANE REPAIRS - M.B./T.
 0311214 2 REPAIR MOD. BITUMINOUS / THERMOPLASTIC
 0311215 2 FLASHING REPAIRS MOD. BIT./ THERMOPL.
 0311217 2 MEMBRANE REPLACEMENT OR REPAIR M.B./T.
 0311220 2 THERMOSETTING
 0311221 2 DEBRIS REMOVAL & VISUAL INSP.- THERMOSET
 0311222 2 MOISTURE INSPECTION - THERMOSETTING
 0311223 2 MINOR MEMBRANE REPAIRS - THERMOSETG.
 0311224 2 MINOR REPLACEMENT - THERMOSETTING
 0311225 2 FLASHING REPAIRS - THERMOSETTING
 0311227 2 MEMBRANE REPLACEMENT - THERMOSETTING
 0311300 2 STEEP ROOFING
 0311310 2 SLATE
 0311312 2 NON-DESTRUCTIVE MOISTURE INSPECT. - SLATE
 0311313 2 REPAIRS - SLATE ROOF
 0311314 2 MINOR TILE REPLACEMENT - SLATE ROOF
 0311315 2 FLASHING REPAIRS - SLATE ROOF
 0311317 2 TOTAL ROOF REPLACEMENT - SLATE ROOF
 0311320 2 CEMENT ASBESTOS
 0311321 2 DEBRIS REMOV. BY HAND-VIS. INSP.-CEMT ASB.
 0311322 2 NON-DESTRUCT. MOISTURE INSPECT. -CEMT ASB.
 0311323 2 REPAIR - CEMENT ASBESTOS ROOF
 0311324 2 MINOR REPLACEMENT - CEMENT ASBESTOS
 0311325 2 FLASHING REPAIR - CEMENT ASBESTOS
 0311327 2 TOTAL ROOF REPLACEMENT - CEMENT ASBESTOS
 0311330 2 TILE
 0311331 2 DEBRIS REMOV. BY HAND & VISUAL INSP.-TILE
 0311332 2 NON-DESTRUCTIVE MOISTURE INSPECT. - TILE
 0311333 2 REPAIR - TILE ROOFING
 0311334 2 MINOR REPLACEMENT - TILE ROOF
 0311335 2 FLASHING REPAIR - TILE ROOF
 0311337 2 TOTAL ROOF REPLACEMENT - TILE ROOF
 0311340 2 ROLL ROOFING
 0311341 2 DEBRIS REMOV. BY HAND & VIS. INSP.-ROLL RF
 0311342 2 NON-DESTRUCT. MOISTURE INSPECT.-ROLL RFG.
 0311343 2 MINOR ROOFING REPAIR - ROLL ROOFING
 0311344 2 MINOR REPLACEMENT - ROLL ROOFING
 0311345 2 FLASHING REPAIRS - ROLL ROOFING
 0311347 2 TOTAL ROOF REPLACEMENT - ROLL ROOFING

Cases No : Unit of Measure : Description

0311350 2 SHINGLES
 0311351 2 DEBRIS REMOV. BY HAND & VIS. INSP.-SHINGLE
 0311352 2 NON-DESTRUCTIVE MOISTURE INSP. - SHINGLE
 0311353 2 MINOR REPAIRS - SHINGLED ROOF
 0311354 2 MINOR REPLACEMENT - SHINGLED ROOF
 0311355 2 FLASHING REPAIRS - SHINGLED ROOF
 0311356 2 REPLACE NEW OVER EXISTING-SHINGLED RFG.
 0311357 2 REMOVAL AND REPLACEMENT OF SHINGLED ROOF
 0311360 2 METAL
 0311361 2 DEBRIS REMOV. BY HAND-VIS. INSP.-METAL RFG
 0311362 2 NON-DESTRUCT. MOISTURE INSPCT.-METAL RFG
 0311363 2 MINOR REPAIRS - METAL ROOF
 0311364 2 MINOR REPLACEMENT - METAL ROOF
 0311365 2 FLASHING REPLACEMENT - METAL ROOF
 0311367 2 TOTAL METAL PANEL REPLACEMENT-METAL ROOF
 0400000 EXTERIOR CLOSURE
 0410000 EXTERIOR WALLS
 0411000 EXTERIOR WALL CONSTRUCTION
 0412000 INTERIOR SKIN CONSTRUCTION
 0413000 SCREEN WALLS
 0414000 SOFFITS AND FACIA
 0415000 EXTERIOR FINISHES
 0415100 2 ADOBE EXTERIOR FINISH
 0415110 2 first floor
 0415112 2 REPAIR ADOBE EXTERIOR WALL - 1ST FLOOR
 0415113 2 REFINISH REPAIRED ADOBE EXT. WALL 1ST FL.
 0415114 2 REFINISH ADOBE EXTERIOR WALL 1ST FLOOR
 0415115 2 REPLACE ADOBE EXTERIOR WALL - 1ST FLOOR
 0415116 2 REFINISH REPLACED ADOBE EXT. WALL 1ST FL.
 0415120 2 second floor
 0415122 2 REPAIR ADOBE EXTERIOR WALL - 2ND FLOOR
 0415123 2 REFINISH REPAIRED ADOBE EXT. WALL 2ND FL.
 0415124 2 REFINISH ADOBE EXTERIOR WALL 2ND FLOOR
 0415125 2 REPLACE ADOBE EXTERIOR WALL - 2ND FLOOR
 0415126 2 REFINISH REPLACED ADOBE EXT. WALL 2ND FL.
 0415130 2 third + floors
 0415132 2 REPAIR ADOBE EXTERIOR WALL - 3RD+ FLOORS
 0415133 2 REFINISH REPAIRED ADOBE EXT. WALL 3RD+FL.
 0415134 2 REFINISH ADOBE EXT. WALL 3RD + FLOORS
 0415135 2 REPLACE ADOBE EXTERIOR WALL - 3RD+FLOORS
 0415136 2 REFINISH REPLACED ADOBE EXT. WALL 3RD+FL.
 0415200 2 CLAY BRICK EXTERIOR FINISH
 0415210 2 first floor
 0415212 2 REPAIR CLAY BRICK EXTERIOR WALL -1ST FL.
 0415215 2 REPLACE CLAY BRICK EXTERIOR WALL -1ST FL.
 0415220 2 second floor
 0415222 2 REPAIR CLAY BRICK EXTERIOR WALL-2ND FL.
 0415225 2 REPLACE CLAY BRICK EXTERIOR WALL-2ND FL.
 0415230 2 third + floors
 0415232 2 REPAIR CLAY BRICK EXTERIOR WALL-3RD+ FL.
 0415235 2 REPLACE CLAY BRICK EXTERIOR WALL-3RD+FL.
 0415300 2 CLAY BRICK (PAINTED) EXT. FINISH
 0415310 2 first floor
 0415312 2 REPAIR PNTD CLAY BRICK EXT. WALL 1ST FL.

Cases No : Unit of Measure : Description

0415313 2 REFIN.REPAIR.PNTD.CLAY BRICK EXT.WALL 1ST FL.
0415314 2 REFIN.PNTD.CLAY BRICK EXT.WALL 1ST FL.
0415315 2 REPLACE.PNTD.CLAY BRICK EXT.WALL 1ST FL.
0415316 2 REFIN.REPLCD.PNTD.CLAY BRICK EXT.1ST FL.
0415320 2 second floor
0415322 2 REPAIR.PNTD.CLAY BRICK EXT.WALL 2ND FL.
0415324 2 REFIN.REPAIR.PNTD.CLAY BRICK EXT.2ND FL.
0415326 2 REFIN.PNTD. CLAY BRICK EXT.WALL 2ND FL.
0415328 2 REPLACE.PNTD.CLAY BRICK EXT.WALL 2ND FL.
0415329 2 REFIN.REPLCD.PNTD.CLAY BRICK EXT.2ND FL.
0415330 2 third + floors
0415332 2 REPAIR.PNTD.CLAY BRICK EXT.WALL 3RD+FLS.
0415333 2 REFIN.REPAIR.PNTD.CLAY BRICK EXT.3RD+FL.
0415334 2 REFIN.PNTD.CLAY BRICK EXT.WALL 3RD+FLS.
0415335 2 REPLACE.PNTD.CLAY BRICK EXT.WALL 3RD+FL.
0415336 2 REFIN.REPLCD.PNTD.CLAY BRICK EXT.3RD+FL.
0415400 2 CONCRETE BRICK EXTERIOR FINISH
0415410 2 first floor
0415412 2 REPAIR CONCRETE BRICK EXT. WALL 1ST FL.
0415415 2 REPLACE CONCRETE BRICK EXT.WALL 1ST FL.
0415420 2 second floor
0415422 2 REPAIR CONCRETE BRICK EXT.WALL 2ND FL.
0415425 2 REPLACE CONCRETE BRICK EXT.WALL 2ND FL.
0415430 2 third + floors
0415432 2 REPAIR CONCRETE BRICK EXT.WALL 3RD+ FL.
0415435 2 REPLACE CONCRETE BRICK EXT.WALL 3RD+FLS.
0415500 2 CONCRETE BRICK (PAINTED) EXT. FINISH
0415510 2 first floor
0415512 2 REPR.PNTD.CONCRETE BRICK EXT.WALL 1ST FL
0415513 2 RFN.RPRD.PNTD.CONC.BRICK EXT.WALL 1ST FL
0415514 2 REFIN.PNTD.CONCRETE BRICK EXT.WALL 1ST FL.
0415515 2 REPLC.PNTD.CONC. BLOCK EXT.WALL 1ST FL.
0415516 2 RFN.RPLC.PNTD.CONC.BRICK EXT.WALL 1ST FL
0415520 2 second floor
0415522 2 REPR.PNTD.CONCRETE BRICK EXT.WALL 2ND FL
0415523 2 RFN.RPRD.PNTD.CONC.BRICK EXT.WALL 2ND FL.
0415524 2 REFIN.PNTD.CONC. BRICK EXT.WALL 2ND FL.
0415525 2 REPLC.PNTD.CONC. BRICK EXT.WALL 2ND FL.
0415526 2 RFN.RPLC.PNTD.CONC.BRICK EXT.WALL 2ND FL
0415530 2 third + floors
0415532 2 REPR.PNTD.CONCRETE BRICK EXT.WALL 3RD+FL
0415533 2 RFN.RPRD.PNTD.CONC.BRICK EXT.WALL 3RD+FL
0415534 2 REFIN.PNTD.CONC.BRICK EXT.WALL 3RD+ FL.
0415535 2 RPLC.PNTD.CONC. BRICK EXT.WALL 3RD+FLS.
0415536 2 RFN.RPLC.PNTD.CONC.BRICK EXT.WALL 3RD+FL
0415600 2 STRUCTURAL CLAY TILE EXTERIOR FINISH
0415610 2 first floor
0415612 2 REPAIR STRUC.CLAY TILE EXT.WALL 1ST FL.
0415615 2 REPLACE STRUC.CLAY TILE EXT.WALL 1ST FL.
0415620 2 second floor
0415622 2 REPAIR STRUC.CLAY TILE EXT.WALL 2ND FL.
0415625 2 REPLACE STRUC.CLAY TILE EXT.WALL 2ND FL.
0415630 2 third + floors
0415632 2 REPAIR STRUC.CLAY TILE EXT.WALL 3RD+FLS.
0415635 2 REPLACE STRUC.CLAY TILE EXT.WALL 3RD+FL.
0415700 2 STRUCTURAL CLAY TILE (WP/P) EXT. FIN.
0415710 2 first floor

Cases No : Unit of Measure : Description

0415712 2 REPR.PNTD.STRUCT.CLAY TILE EXT. 1ST FL.
0415713 2 RFN.RPR.PNT.STRUCT.CLAY TILE EXT.1ST FL.
0415714 2 REFIN.PNTD.STRUCT.CLAY TILE EXT.1ST FL.
0415715 2 REPLC.PNTD.STRUCT.CLAY TILE EXT. 1ST FL.
0415716 2 RFN.RPLC.PNT.STRUC.CLAY TILE EXT.1ST FL
0415720 2 second floor
0415722 2 REPR.PNTD.STRUCT.CLAY TILE EXT. 2ND FL.
0415723 2 RFN.RPR.PNT.STRUC.CLAY TILE EXT.2ND FL.
0415724 2 REFIN.PNTD.STRUCT.CLAY TILE EXT.2ND FL.
0415725 2 REPLC.PNTD.STRUCT.CLAY TILE EXT.2ND FL.
0415726 2 RFN.RPLC.PNT.STRUC.CLAY TILE EXT.2ND FL
0415730 2 third + floors
0415732 2 REPR.PNTD.STRUC.CLAY TILE EXT.3RD+FLS.
0415733 2 RFN.RPR.PNT.STRUC.CLAY TILE EXT.3RD+FL.
0415734 2 REFIN.PNTD.STRUCT.CLAY TILE EXT.3RD+FLS.
0415735 2 REPLC.PNTD.STRUCT.CLAY TILE EXT.3RD+FLS.
0415736 2 RFN.RPLC.PNT.STRUC.CLAY TILE EXT.3RD+FL
0415800 2 CONCRETE BLOCK EXTERIOR FINISH
0415810 2 first floor
0415812 2 REPAIR CONCRETE BLOCK EXT.WALL 1ST FL.
0415815 2 REPLACE CONCRETE BLOCK EXT.WALL 1ST FL.
0415820 2 second floor
0415822 2 REPAIR CONCRETE BLOCK EXT.WALL 2ND FL.
0415825 2 REPLACE CONCRETE BLOCK EXT.WALL 2ND FL.
0415830 2 third + floors
0415832 2 REPAIR CONCRETE BLOCK EXT.WALL 3RD+ FL.
0415835 2 REPLACE CONCRETE BLOCK EXT.WALL 3RD FL.
0415900 2 CONCRETE BLOCK (WP/P) EXT. FINISH
0415910 2 first floor
0415912 2 REPR.PNTD.CONC. BLOCK EXT.WALL 1ST FL.
0415913 2 RFN.RPR.PNTD.CONC.BLOCK EXT.WALL 1ST FL
0415914 2 REFIN.PNTD.CONC.BLOCK EXT.WALL 1ST FL.
0415915 2 REPLC.PNTD.CONC.BLOCK EXT.WALL 1ST FL.
0415916 2 RFN.RPLC.PNTD.CONC.BLOCK EXT.WALL 1ST FL
0415920 2 second floor
0415922 2 REPR.PNTD.CONCRETE BLOCK EXT.WALL 2ND FL
0415923 2 RFN.RPR.PNTD.CONC.BLOCK EXT.WALL 2ND FL.
0415924 2 REFIN.PNTD.CONC. BLOCK EXT.WALL 2ND FL.
0415925 2 REPLC.PNTD.CONC. BLOCK EXT.WALL 2ND FL.
0415926 2 RFN.RPLC.PNT.CONC.BLOCK EXT.WALL 2ND FL.
0415930 2 third + floors
0415932 2 REPR.PNTD.CONC.BLOCK EXT.WALL 3RD FL.
0415933 2 RFN.RPR.PNTD.CONC.BLOCK EXT.WALL 3RD+FL.
0415934 2 REFIN.PNTD.CONC. BLOCK EXT.WALL 3RD+FL.
0415935 2 REPLC.PNTD.CONC.BLOCK EXT.WALL 3RD+FL.
0415936 2 RFN.RPLC.PNT.CONC.BLOCK EXT.WALL 3RD+FL.
0415A00 2 CONCRETE EXTERIOR FINISH
0415A10 2 first floor
0415A12 2 REPAIR CONCRETE EXT. WALL 1ST FLOOR
0415A13 2 REFIN.REPAIRED CONCRETE EXT.WALL 1ST FL.
0415A14 2 REFINISH CONCRETE EXT.WALL 1ST FLOOR
0415A15 2 REPLACE CONCRETE EXT.WALL 1ST FLOOR
0415A16 2 REFIN.REPAIRED CONCRETE EXT.WALL 1ST FL.
0415A20 2 second floor
0415A22 2 REPAIR CONCRETE EXT.WALL 2ND FLOOR
0415A23 2 REFIN.REPAIRED CONCRETE EXT.WALL 2ND FL.
0415A24 2 REFINISH CONCRETE EXT.WALL 2ND FLOOR

Cases No : Unit of Measure : Description

0415A25 2 REPLACE CONCRETE EXT. WALL - 2ND FLOOR
 0415A26 2 REFIN.REPLACED CONCRETE EXT.WALL 2ND FL.
 0415A30 2 third + floors
 0415A32 2 REPAIR CONCRETE EXT. WALL 3RD+ FLOOR
 0415A33 2 REFIN.REPAIRED CONCRETE EXT.WALL 3RD+FL.
 0415A34 2 REFINISH CONCRETE EXT.WALL 3RD+ FLRS.
 0415A35 2 REPLACE CONCRETE EXT. WALL 3RD+ FLOORS
 0415A36 2 REFIN.REPLACED CONCRETE EXT.WALL 3RD+FL.
 0415B00 2 STONE EXTERIOR FINISH
 0415B10 2 first floor
 0415B12 2 REPAIR STONE EXTERIOR WALL - 1ST FLOOR
 0415B15 2 REPLACE STONE EXTERIOR WALL - 1ST FLOOR
 0415B20 2 second floor
 0415B22 2 REPAIR STONE EXTERIOR WALL - 2ND FLOOR
 0415B25 2 REPLACE STONE EXTERIOR WALL - 2ND FLOOR
 0415B30 2 third + floors
 0415B32 2 REPAIR STONE EXTERIOR WALL - 3RD+ FLOORS
 0415B35 2 REPLACE STONE EXTERIOR WALL - 3RD+ FLOORS
 0415C00 2 STUCCO EXTERIOR FINISH
 0415C10 2 first floor
 0415C12 2 REPAIR STUCCO EXTERIOR WALL - 1ST FLOOR
 0415C13 2 REFIN. REPAIRED STUCCO EXT.WALL 1ST FL.
 0415C14 2 REFINISH STUCCO EXT. WALL 1ST FLOOR
 0415C15 2 REPLACE STUCCO EXTERIOR WALL - 1ST FLOOR
 0415C16 2 REFIN.REPLACED STUCCO EXT.WALL 1ST FLOOR
 0415C20 2 second floor
 0415C22 2 REPAIR STUCCO EXTERIOR WALL - 2ND FLOOR
 0415C23 2 REFIN.REPAIRED STUCCO EXT.WALL 2ND FLOOR
 0415C24 2 REFINISH STUCCO EXT. WALL 2ND FLOOR
 0415C25 2 REPLACE STUCCO EXTERIOR WALL - 2ND FLOOR
 0415C26 2 REFIN.REPLACED STUCCO EXT.WALL 2ND FLOOR
 0415C30 2 third + floors
 0415C32 2 REPAIR STUCCO EXTERIOR WALL - 3RD+ FLOORS
 0415C33 2 REFIN.REPAIRED STUCCO EXT.WALL 3RD+ FLRS.
 0415C34 2 REFINISH STUCCO EXT.WALL 3RD + FLOORS
 0415C35 2 REPLACE STUCCO EXTERIOR WALL 3RD+ FLOORS
 0415C36 2 REFIN.REPLACED STUCCO EXT.WALL 3RD+ FLRS.
 0415D00 2 TERRACOTTA EXTERIOR FINISH
 0415D10 2 first floor
 0415D12 2 REPAIR TERRACOTTA EXTERIOR WALL 1ST FLR.
 0415D15 2 REPLACE TERRACOTTA EXTERIOR WALL 1ST FL.
 0415D20 2 second floor
 0415D22 2 REPAIR TERRACOTTA EXTERIOR WALL 2ND FLR.
 0415D25 2 REPLACE TERRACOTTA EXTERIOR WALL 2ND FL.
 0415D30 2 third + floors
 0415D32 2 REPAIR TERRACOTTA EXTERIOR WALL 3RD+ FL.
 0415D35 2 REPLACE TERRACOTTA EXTERIOR WALL 3RD+FL.
 0415E00 2 WOOD, FINISHED (SINGLE COAT) EXT. FIN.
 0415E10 2 first floor
 0415E12 2 REPR.WOOD FIN.(S.CT) EXT. 1ST
 0415E13 2 REFIN.RPR.WOOD FIN.(S.CT)1ST F
 0415E14 2 REFIN.WOOD FIN.(S.CT) 1ST FL.
 0415E15 2 RPLC.WOOD FIN.(S.CT)EXT.1ST FL
 0415E16 2 REFIN.RPLC.WOOD FIN.(S.CT) 1ST
 0415E20 2 second floor
 0415E22 2 REPR.WOOD FIN.(S.CT)EXT.2ND FL
 0415E23 2 REFIN.RPR.WOOD FIN.(S.CT)2ND F

Cases No : Unit of Measure : Description

0415E24 2 REFIN.WOOD FINISH(S.CT)2ND FL
 0415E25 2 RPLC.WOOD FIN.(S.CT)EXT.2ND FL
 0415E26 2 REFIN.RPLC.WOOD FIN.(S.CT)2ND
 0415E30 2 third + floors
 0415E32 2 REPR.WOOD FIN.(S.CT)EXT.3RD FL
 0415E33 2 REFIN.RPR.WOOD FIN.(S.CT)3RD FL
 0415E34 2 REFIN.WOOD FIN.(S.CT)EXT.3RD FL
 0415E35 2 RPLC.WOOD FIN.(S.CT)EXT.3RD FL
 0415E36 2 REFIN.RPLC.WOOD FIN.(S.CT)3RD F
 0415F00 2 WOOD, FINISHED (MULTI-COAT) EXT. FIN.
 0415F10 2 first floor
 0415F12 2 REPR.WOOD FIN.(M.CT)EXT.1ST FL
 0415F13 2 REFIN.RPR.WOOD FIN.(M.CT)1ST F
 0415F14 2 REFIN.WOOD FIN.(M.CT)EXT.1ST FL
 0415F15 2 RPLC.WOOD FIN.(M.CT)EXT.1ST FL
 0415F16 2 REFIN.RPLC.WOOD FIN.(M.CT)1ST F
 0415F20 2 second floor
 0415F22 2 REPR.WOOD FIN.(M.CT)EXT.2ND FL
 0415F23 2 REFIN.RPR.WOOD FIN.(M.CT)2ND FL
 0415F24 2 REFIN.WOOD FIN.(M.CT)EXT.2ND FL
 0415F25 2 RPLC.WOOD FIN.(M.CT)EXT.2ND FL
 0415F30 2 REFIN.RPLC.WOOD FIN.(M.CT)2ND F
 0415F32 2 REPR.WOOD FIN.(M.CT)EXT.3RD FL
 0415F33 2 REFIN.RPR.WOOD FIN.(M.CT)3RD FL
 0415F34 2 REFIN.WOOD FIN.(M.CT)EXT.3RD FL
 0415F35 2 RPLC.WOOD FIN.(M.CT)EXT.3RD FL
 0415F36 2 REFIN.RPR.WOOD FIN.(M.CT)3RD FL
 0415G00 2 WOOD SHAKES (UNFINISHED) EXT. FINISH
 0415G10 2 first floor
 0415G12 2 REPR.WOOD SHAKES EXT.1ST FL
 0415G15 2 RPLC.WOOD SHAKES EXT. 1ST FL.
 0415G20 2 second floor
 0415G22 2 REPR.WOOD SHAKES EXT. 2ND FL.
 0415G25 2 RPLC.WOOD SHAKES EXT. 2ND FL.
 0415G30 2 third + floors
 0415G32 2 REPR.WOOD SHAKES EXT. 3RD+ FL.
 0415G35 2 RPLC.WOOD SHAKES EXT. 3RD+ FL.
 0415H00 2 WOOD SHAKES (FINISHED) EXT. FINISH
 0415H10 2 first floor
 0415H12 2 REPR.WOOD SHAKES(FIN)EXT.1ST F
 0415H13 2 REFIN.RPR.WOOD SHKE(FIN)1ST FL
 0415H14 2 REFIN.WOOD SHAKE(FIN)EXT.1ST FL
 0415H15 2 RPLC.WOOD SHAKE(FIN)EXT.1ST FL
 0415H16 2 REFIN.RPLC.WOOD SHKE(FIN)1ST FL
 0415H20 2 second floor
 0415H22 2 REPR.WOOD SHAKE(FIN)EXT.2ND FL
 0415H23 2 REFIN.RPR.WOOD SHAKE(FIN)2ND FL
 0415H24 2 REFIN.WOOD SHAKE(FIN)EXT.2ND FL
 0415H25 2 RPLC.WOOD SHAKE(FIN)EXT.2ND FL
 0415H26 2 REFIN.RPLC.WOOD SHKE(FIN)2ND FL
 0415H30 2 third + floors
 0415H32 2 REPR.WOOD SHAKE(FIN)EXT.3RD FL
 0415H33 2 REFIN.RPR.WOOD SHAKE(FIN)3RD FL
 0415H34 2 REFIN.WOOD SHAKE(FIN)EXT.3RD FL
 0415H35 2 RPLC.WOOD SHAKE(FIN)EXT.3RD FL
 0415H36 2 REFIN.RPLC.WOOD SHKE(FIN)3RD FL

Cases No : Unit of Measure : Description

0415100 2 ALUMINUM SIDING
 0415110 2 first floor
 0415112 2 REPAIR ALUM.SIDING EXT.1ST FL.
 0415115 2 REPLACE ALUM.SIDING EXT.1ST FL
 0415120 2 second floor
 0415122 2 REPAIR ALUM.SIDING EXT.2ND FL.
 0415125 2 REPLACE ALUM.SIDING EXT.2ND FL
 0415130 2 third + floors
 0415132 2 REPAIR ALUM.SIDING EXT.3RD FL.
 0415135 2 REPLACE ALUM.SIDING EXT.3RD FL
 0415J00 2 ALUMINUM SIDING (ANODIZED) FINISH
 0415J10 2 first floor
 0415J12 2 RPR.ALUM.SIDG.(ANDZ)EXT.1ST FL
 0415J15 2 RPLAC.ALUM.SIDG.(ANDZ)1ST FL
 0415J20 2 second floor
 0415J22 2 RPR.ALUM.SIDG.(ANDZ)EXT.2ND FL
 0415J25 2 RPLC.ALUM.SIDG.(ANDZ) 2ND FL
 0415J30 2 third + floors
 0415J32 2 REPR.ALUM.SIDG.(ANDZ)EXT.3RD FL
 0415J35 2 RPLC.ALUM.SIDG.(ANDZ)EXT.3RD FL
 0415K00 2 STEEL (SELF-COATING) EXTERIOR FINISH
 0415K10 2 first floor
 0415K12 2 REPAR.STEEL(SLF-CTG)EXT.1ST FL
 0415K15 2 REPLC.STEEL(SLF-CTG)EXT.1ST FL
 0415K20 2 second floor
 0415K22 2 REPAR.STEEL(SLF-CTG)EXT.2ND FL
 0415K25 2 REPLC.STEEL(SLF-CTG)EXT.2ND FL
 0415K30 2 third + floors
 0415K32 2 REPAR.STEEL(SLF-CTG)EXT.3RD FL
 0415K35 2 REPLC.STEEL(SLF-CTG)EXT.3RD FL
 0415L00 2 STEEL (PAINTED) EXTERIOR FINISH
 0415L10 2 first floor
 0415L12 2 REPAR.STEEL(PNTD)EXT. 1ST FL
 0415L13 2 REFN.RPR.STEEL(PNTD)EXT.1ST FL
 0415L14 2 REFIN.STEEL(PNTD)EXT. 1ST FL
 0415L15 2 REPLC.STEEL(PNTD)EXT. 1ST FL
 0415L16 2 RFN.RPLC.STEEL(PNTD)EXT.1ST FL
 0415L20 2 second floor
 0415L22 2 REPAR.STEEL(PNTD)EXT.2ND FL
 0415L23 2 REFN.RPR.STEEL(PNTD)EXT.2ND FL
 0415L24 2 REFIN.STEEL(PNTD)EXT. 2ND FL
 0415L25 2 REPLACE STEEL(PNTD)EXT.2ND FL
 0415L26 2 RFN.RPLC.STEEL(PNTD)EXT.2ND FL
 0415L30 2 third + floors
 0415L32 2 REPAIR STEEL(PNTD)EXT. 3RD FL
 0415L33 2 REFN.RPR.STEEL(PNTD)EXT.3RD FL
 0415L34 2 REFIN.STEEL(PNTD)EXT. 3RD FL
 0415L35 2 REPLACE STEEL(PNTD)EXT.3RD FL
 0415L36 2 RFN.RPLC.STEEL(PNTD)EXT.3RD+FL
 0415M00 2 GLASS BLOCK EXTERIOR FINISH
 0415M10 2 first floor
 0415M12 2 REPAIR GLASS BLOCK EXT.1ST FL
 0415M15 2 REPLACE GLASS BLOCK EXT.1ST FL
 0415M20 2 second floor
 0415M22 2 REPAIR GLASS BLOCK EXT. 2ND FL
 0415M25 2 REPLACE GLASS BLOCK EXT.2ND FL
 0415M30 2 third + floors

Cases No : Unit of Measure : Description

0415M32 2 REPAIR GLASS BLOCK EXT. 3RD FL
 0415M35 2 REPLACE GLASS BLOCK EXT.3RD FL
 0415N00 2 PLATE GLASS EXTERIOR FINISH
 0415N10 2 first floor
 0415N12 2 REPAIR PLATE GLASS EXT.1ST FL
 0415N15 2 REPLACE PLATE GLASS EXT.1ST FL
 0415N20 2 second floor
 0415N22 2 REPAIR PLATE GLASS EXT. 2ND FL
 0415N25 2 REPLACE PLATE GLASS EXT.2ND FL
 0415N30 2 third + floors
 0415N32 2 REPAIR PLATE GLASS EXT.3RD+ FL
 0415N35 2 REPLACE PLATE GLASS EXT.3RD+FL
 0415O00 2 FORMICA, MYLAR, POLYESTER, VINYL
 0415O10 2 first floor
 0415O12 2 REPR.FORMICA-VINYL EXT.1ST FL
 0415O15 2 REPLC.FORMICA-VINYL EXT.1ST FL
 0415O20 2 second floor
 0415O22 2 REPR.FORMICA-VINYL EXT.2ND FL
 0415O25 2 REPLC.FORMICA-VINYL EXT.2ND FL
 0415O30 2 third + floors
 0415O32 2 REPR.FORMICA-VINYL EXT.3RD+ FL
 0415O35 2 REPLC.FORMICA-VINYL EXT.3RD+FL
 0415P00 2 ASBESTOS EXTERIOR FINISH
 0415P10 2 first floor
 0415P12 2 REPR.ASBESTOS EXT. WALL 1ST FL
 0415P15 2 REPLC.ASBESTOS EXT.WALL 1ST FL
 0415P20 2 second floor
 0415P22 2 REPR.ASBESTOS EXT.WALL 2ND FL
 0415P25 2 REPLC.ASBESTOS EXT.WALL 2ND FL
 0415P30 2 third + floors
 0415P32 2 REPR.ASBESTOS EXT.WALL 3RD FL
 0415P35 2 REPLC.ASBESTOS EXT.WALL 3RD+FL
 0415R00 2 SYNTHETIC VENEER-PLASTER EXT. FINISH
 0415R10 2 first floor
 0415R12 2 REPAIR SYNTH.VENEER EXT. 1ST F
 0415R13 2 REFIN.RPRD.SYNTH.VENEER 1ST FL
 0415R14 2 REFIN.SYNTH.VENEER EXT.1ST FL.
 0415R15 2 REPLC.SYNTH.VENEER EXT. 1ST FL.
 0415R16 2 REFN.REPLD.SYNTH.VENEER 1ST FL
 0415R20 2 second floor
 0415R22 2 REPAIR SYNTH.VENEER EXT.2ND FL
 0415R23 2 REFN.RPLCD.SYNTH.VENEER 2ND FL
 0415R24 2 REFIN.SYNTH.VENEER EXT.2ND FL.
 0415R25 2 REPLC.SYNTH.VENEER EXT.2ND FL.
 0415R26 2 REFN.RPLCD.SYNTH.VENEER 2ND FL
 0415R30 2 third + floors
 0415R32 2 REPAIR SYNTH.VENEER EXT.3RD FL
 0415R33 2 REFIN.RPRD.SYNTH.VENEER 3RD FL
 0415R34 2 REFIN.SYNTH.VENEER EXT.3RD FL.
 0415R35 2 REPLC.SYNTH.VENEER EXT.3RD FL.
 0415R36 2 REFN.RPLCD.SYNTH.VENEER 3RD FL
 0415S00 2 PORCELAIN PANELS EXTERIOR FINISH
 0415S10 2 first floor
 0415S12 2 REPR.PORCELAIN EXT.PAN.1ST FL.
 0415S15 2 REPLC.PORCELAIN EXT.PAN.1ST FL
 0415S20 2 second floor
 0415S22 2 REPR.PORCELAIN EXT.PAN.2ND FL.

Cases No : Unit of Measure : Description

0415S25 2 REPLC.PORCELAIN EXT.PAN.2ND FL
 0415S30 2 third + floors
 0415S32 2 REPR.PORCELAIN EXT.PAN.3RD FL.
 0415S35 2 REPLC.PORCELAIN EXT.PAN.3RD FL
 0420000 EXTERIOR DOORS
 0421000 METAL DOORS
 0421100 1 ALUMINUM (PLAIN & ANODIZED)
 0421110 1 ALUMINUM (PLAIN & ANODIZED)
 0421112 1 REPAIR ALUMINUM (P/A) EXTERIOR DOOR
 0421115 1 REPLACE ALUMINUM (P/A) EXTERIOR DOOR
 0421200 1 STEEL (PAINTED)
 0421210 1 STEEL (PAINTED)
 0421212 1 REPAIR STEEL (PAINTED) EXTERIOR DOOR
 0421214 1 REFINISH STEEL (PAINTED) EXTERIOR DOOR
 0421215 1 REPLACE STEEL (PAINTED) EXTERIOR DOOR
 0421216 1 REFIN. REPLACED STEEL (PAINT) EXT. DOOR
 0421300 1 STEEL (UNPAINTED)
 0421310 1 STEEL (UNPAINTED)
 0421312 1 REPAIR STEEL (UNPAINTED) EXTERIOR DOORS
 0421315 1 REPLACE STEEL (UNPAINTED) EXTERIOR DOORS
 0422000 FULLY GLAZED DOORS
 0422100 1 ALUMINUM FRAME
 0422110 1 BROKEN GLASS-REPLACEMENT ALUMINUM EXT.DR
 0422111 1 REPAIR ALUMINUM EXTERIOR DOORS
 0422112 1 REPLACE ALUMINUM EXTERIOR DOORS
 0422115 1 WOOD FRAME (PAINTED)
 0422200 1 WOOD FRAME (PAINTED)
 0422210 1 BROKEN GLASS-REPL. WOOD FRAME (PNTD) EXT.DR
 0422211 1 REPAIR WOOD FRAME EXTERIOR DOORS
 0422212 1 REFINISH WOOD FRAME (PAINTED) EXT. DOOR
 0422214 1 REPLACE WOOD FRAME (PAINTED) EXT. DOOR
 0422215 1 REFIN. REPLACED HOLLOW CORE (PNTD) EXT. DR
 0422216 1 SOLID CORE (PAINTED)
 0423000 WOOD DOORS
 0423100 1 HOLLOW CORE (PAINTED)
 0423110 1 REPAIR HOLLOWCORE (PAINTED) EXT.DOOR
 0423112 1 REFINISH HOLLOWCORE (PNTD) EXTERIOR DOORS
 0423114 1 REPLACE HOLLOW CORE (PAINTED) EXT. DOOR
 0423115 1 SOLID CORE (PAINTED)
 0423200 1 SOLID CORE (PAINTED)
 0423210 1 REPAIR SOLID CORE (PAINTED) EXT.DOOR
 0423212 1 REFINISH SOLID CORE (PAINTED) EXT. DOOR
 0423214 1 REPLACE SOLID CORE (PAINTED) EXT. DOOR
 0423215 1 REFIN. REPLACED SOLID CORE (PNTD) EXT.DR.
 0424000 SPECIAL DOORS
 0425000 GATES
 0426000 SCREEN/STORM
 0426100 1 ALUMINUM (PLAIN & ANODIZED)
 0426110 1 ALUMINUM (PLAIN & ANODIZED)
 0426112 1 REPAIR ALUMINUM (P/A) EXTERIOR DOORS
 0426115 1 REPLACE ALUMINUM (P/A) EXTERIOR DOORS
 0426200 1 PLASTIC
 0426210 1 PLASTIC
 0426212 1 REPAIR PLASTIC EXTERIOR DOORS

Cases No : Unit of Measure : Description

0426215 1 REPLACE PLASTIC EXTERIOR DOORS
 0427000 GARAGE - ROLL-UP DOOR
 0427100 1 SINGLE ROLL-UP DOOR
 0427102 1 REPR. STEEL FRM. SINGLE (PNTD) DR
 0427104 1 REFINISH STEEL FRAME (PAINTED) EXT. DOOR
 0427105 1 REPLACE STEEL FRAME SINGLE (PNTD) EXT.DR.
 0427106 1 REFIN. REPLC. STEEL FRM. SINGLE (PNTD) EXT.DR
 0427200 1 DOUBLE ROLL-UP DOOR
 0427202 1 REPR. STEEL FRM. DBL. (PNT) EXT.DR
 0427204 1 REFIN. STEEL FRM. DBL. (PND) EXT.DR
 0427205 1 REPLC. STEEL FRM. DBL. (PND) EXT.DR
 0427206 1 RPLC. FIN. ST. FRM. DBL. (PND) EXT.DR
 0430000 EXTERIOR WINDOWS
 0431000 OPERABLE WINDOWS
 0431100 1 ALUMINUM OPERABLE WINDOWS
 0431110 1 first floor
 0431111 1 BROKEN GLASS-REPLACENT ALUM. WND. 1ST FL.
 0431112 1 REPAIR ALUMINUM EXTERIOR WND. 1ST FL.
 0431115 1 REPLACE ALUMINUM EXTERIOR WND. 1ST FL.
 0431120 1 second floor
 0431121 1 BROKEN GLASS-REPLCMT. ALUM. WND. EXT. 2ND FL
 0431122 1 REPAIR ALUMINUM EXTERIOR WND. 2ND FL.
 0431125 1 REPLACE ALUMINUM EXTERIOR WND. 2ND FL.
 0431130 1 third + floors
 0431131 1 BROKEN GLASS-REPLCMT. ALUM. EXT. WND. 3RD+FL
 0431132 1 REPAIR ALUMINUM EXTERIOR WND. 3RD+FL.
 0431135 1 REPLACE ALUMINUM EXTERIOR WND. 3RD+ FL.
 0431200 1 STEEL FRAME (PAINTED) OPER. WINDOW
 0431210 1 first floor
 0431211 1 BROKEN GLASS-REPLMNT. STEEL FRM. 1ST FL.
 0431214 1 REFINISH STEEL FRM. (PAINT) EXT. WND. 1ST FL
 0431215 1 REPLACE STEEL FRM. (PNTD) EXT. WND. 1ST FL.
 0431216 1 REFIN. REPLCD. STEEL FRM. (PNTD) WND. 1ST FL.
 0431220 1 second floor
 0431221 1 BRKN. GLS: RPLMT. STL. FRM (PNTD) EXT. 2ND FL.
 0431224 1 REFINISH STEEL FRAME (PNTD) EXT. WND. 2ND FL
 0431225 1 REPLACE STEEL FRM (PNTD) EXT. WND. 2ND FL.
 0431226 1 REFIN. RPLC. STEEL FRM (PNTD) EXT. WND. 2ND FL
 0431230 1 third + floors
 0431231 1 BR. GLS: REPLMNT. STEEL FRM (PNTD) EXT. 3RD+FL
 0431234 1 REFINISH STEEL FRM (PNTD) EXT. WND. 3RD+FL.
 0431235 1 REPLACE STEEL FRM (PNTD) EXT. WND. 3RD+FL.
 0431236 1 REFM. RPLCD. STEEL FRM (PNTD) EXT. WND. 3RD+FL
 0431300 1 WOOD FRAME (PAINTED) OPERABLE WINDOW
 0431310 1 first floor
 0431311 1 BR. GLS: RPLMT. WOOD FRM (PNT) EXT. WND. 1ST FL
 0431314 1 REFINISH WOOD FRAME (PNTD) EXT. WND. 1ST FL.
 0431315 1 REPLACE WOOD FRM (PNTD) EXT. WND. 1ST FL.
 0431316 1 REFIN. RPLCD. WOOD FRM (PNTD) EXT. WND. 1ST FL
 0431320 1 second floor
 0431321 1 BRKN. GLS: RPLMNT. WOOD FRM (PNT) EXT. 2ND FL.
 0431324 1 REFINISH WOOD FRAME (PNTD) EXT. WND. 2ND FL.
 0431325 1 REPLACE WOOD FRAME (PNTD) EXT. WND. 2ND FL.
 0431326 1 REFIN. RPLCD. WOOD FRM (PNT) EXT. WND. 2ND FL.
 0431330 1 third + floors
 0431331 1 BRKN GLS: RPLMNT. WOOD FRM (PNT) EXT. 3RD+FL.

Cases No : Unit of Measure : Description

0431334 1 REFINISH WOOD FRM(PNTD)EXT.MDW.3RD+FL.
 0431335 1 REPLACE WOOD FRM(PNTD)EXT.MDW.3RD+FLS.
 0431336 1 REFIN REPLCD WOOD FRM(PNT)EXT.MDW.3RD+FL
 0431400 1 PLASTIC (WOOD CORE) FRAME OPER. WINDOW
 0431410 1 first floor
 0431411 1 BRK.GLS:RPLMNT.PLAST.(WD.CR)FRM.EXT.1ST FL.
 0431412 1 REPR.PLASTIC(WD.CORE)FRM.EXT.MDW.1ST FL.
 0431415 1 REPLC.PLASTIC(WD.CORE)FRM.EXT.MDW.1ST FL
 0431420 1 second floor
 0431421 1 BRK.GLS:RPLMNT.PLAS.(WD.CR)FRM.EXT.2ND FL
 0431422 1 REPR.PLASTIC(WD.CORE)FRM.EXT.MDW.2ND FL.
 0431425 1 REPLC.PLAS.(WD.CORE)FRM.EXT.MDW.2ND FL.
 0431430 1 third + floors
 0431431 1 BRK.GLS:RPLMNT.PLAS(WD.CR)FRM.EXT.3RD FL.
 0431432 1 REPR.PLAS(WD.CORE)FRM.EXT.MDW.3RD+FL.
 0431435 1 REPLACE PLAS(WD.CORE)FRM.EXT.MDW.3RD+FL.
 0431500 1 GLASS BLOCK (OPERABLE) WINDOW
 0431510 1 first floor
 0431511 1 BRKN.GLS:RPLMNT.GLASS BLOCK EXT.1ST FL.
 0431512 1 REPAIR GLASS BLOCK EXT.MDW. 1ST FL.
 0431515 1 REPLACE GLASS BLOCK EXT. MDW. 1ST FLOOR
 0431520 1 second floor
 0431521 1 BRKN.GLS:RPLMNT.GLASS BLOCK EXT.1ST FL.
 0431522 1 REPAIR GLASS BLOCK EXT. MDW. 2ND FLOOR
 0431525 1 REPLACE GLASS BLOCK EXT. MDW. 2ND FLOOR
 0431530 1 third + floors
 0431531 1 BRKN.GLS:RPLMNT.GLASS BLOCK EXT.3RD+FL.
 0431532 1 REPAIR GLASS BLOCK EXT. MDW. 3RD +FLOORS
 0431535 1 REPLACE GLASS BLOCK EXT. MDW. 3RD+FLOORS
 0431600 1 DOUBLE PANE ALUMINUM OPERABLE WINDOW
 0431610 1 first floor
 0431611 1 BRKN.GLS:RPLMNT.ALUM.(DBL)EXT.1ST FL.
 0431612 1 REPAIR ALUMINUM(DOUBLE)EXT.MDW.1ST FL.
 0431615 1 REPLACE ALUMINUM(DOUBLE)EXT.MDW.1ST FL.
 0431620 1 second floor
 0431621 1 BRKN.GLS:RPLMNT.ALUM.(DBL)EXT.2ND FL.
 0431622 1 REPAIR ALUMINUM(DOUBLE)EXT.MDW.2ND FL.
 0431625 1 REPLACE ALUMINUM(DOUBLE)EXT.MDW.2ND FL.
 0431630 1 third + floors
 0431631 1 BRKN.GLS:RPLMNT.ALUM.(DBL)EXT.3RD+FLS.
 0431632 1 REPAIR ALUMINUM(DOUBLE)EXT.MDW. 3RD+FLS.
 0431635 1 REPLACE ALUMINUM(DOUBLE)EXT.MDW.3RD+FLS.
 0431700 1 DOUBLE PANE STEEL OPERABLE WINDOW
 0431710 1 first floor
 0431711 1 BRKN.GLS:RPLMT.STEEL.FRM(DBL)EXT.1ST FL.
 0431714 1 REFINISH STEEL FRAME(DBL)EXT.MDW.1ST FL.
 0431715 1 REPLACE STEEL FRAME(DBL)EXT.MDW.1ST FL.
 0431716 1 REFIN.REPLC.STEEL FRM.(DBL)EXT.1ST FL.
 0431720 1 second floor
 0431721 1 BRKN.GLS:RPLMT.STEEL FRM(DBL)EXT.2ND FL.
 0431724 1 REFINISH STEEL FRAME(DBL)EXT.MDW.2ND FL.
 0431725 1 REPLACE STEEL FRAME(DBL)EXT.MDW. 2ND FL.
 0431726 1 REFM.REPLC.STEEL FRM(DBL)EXT.MDW.2ND FL.
 0431730 1 third + floors
 0431731 1 BRKN.GLS:RPLMT.STEEL FRM(DBL)EXT.3RD+FL.
 0431734 1 REFINISH STEEL FRAME(DBL)EXT.MDW.3RD+FL.
 0431735 1 REPLACE STEEL FRAME(DBL)EXT.MDW.3RD+FLS.

Cases No : Unit of Measure : Description

0431736 1 REFIN.RPLC.STEEL FRM(DBL)EXT.MDW.3RD+FL.
 0431800 1 DOUBLE PANE WOOD FRAME OPERABLE WINDOW
 0431810 1 first floor
 0431811 1 BRKN.GLS:RPLMNT.WOOD FRM(DBL)EXT.1ST FL.
 0431814 1 REFINISH WOOD FRAME(DBL)EXT.MDW.1ST FL.
 0431815 1 REPLACE WOOD FRAME(DBL)EXT.MDW. 1ST FL.
 0431816 1 REFIN.REPLC.WOOD FRM(DBL)EXT.MDW.1ST FL.
 0431820 1 second floor
 0431821 1 BRKN.GLS:RPLMNT.WOOD FRM(DBL)EXT.2ND FL.
 0431824 1 REFINISH WOOD FRAME(DBL)EXT.MDW.2ND FL.
 0431825 1 REPLACE WOOD FRAME(DBL)EXT.MDW.2ND FL.
 0431826 1 REFIN.REPLC.WOOD FRM(DBL)EXT.MDW.2ND FL.
 0431830 1 third + floors
 0431831 1 BRKN.GLS:RPLMNT.WOOD FRM(DBL)EXT.3RD+FL.
 0431834 1 REFINISH WOOD FRAME(DBL)EXT.MDW.3RD+FLS.
 0431835 1 REPLACE WOOD FRAME(DBL)EXT.MDW.3RD+FLS.
 0431836 1 REFIN.REPLC.WOOD FRM(DBL)EXT.MDW.3RD+FL.
 0431900 1 DOUBLE PANE PLASTIC FRAME OPER. WINDOW
 0431910 1 first floor
 0431911 1 BRKN.GLS:RPLMT.PLASTIC(WD.CR)EXT.1ST FL.
 0431912 1 REPR.PLAST(WD.CR)FRM.DBL.EXT.MDW.1ST FL.
 0431915 1 RPLC.PLAST(WD.CR)FRM.DBL.EXT.MDW.1ST FL.
 0431920 1 second floor
 0431921 1 BRKN.GLS:RPLMT.PLASTIC(WD.CR)EXT.2ND FL.
 0431922 1 REPR.PLAST(WD.CR)FRM.DBL.EXT.MDW.2ND FL.
 0431925 1 RPLC.PLAST(WD.CR)FRM.DBL.EXT.MDW.2ND FL.
 0431930 1 third + floors
 0431931 1 BRKN.GLS:RPLMT.PLASTIC(WD.CR)EXT.3RD+FL.
 0431932 1 REPR.PLAST(WD.CR)FRM.DBL.EXT.MDW.3RD+FL.
 0431935 1 RPLC.PLAST(WD.CR)FRM.DBL.EXT.MDW.3RD+FL.
 0432000 1 ALUMINUM FIXED WINDOWS
 0432100 1 first floor
 0432110 1 BRKN.GLS:RPLMNT.ALUM.FIX.EXT.MDW.1ST FL.
 0432111 1 REPAIR ALUMINUM FIX.EXT.MDW.1ST FLOOR
 0432112 1 REPLACE ALUMINUM FIX.EXT.MDW.1ST FLOOR
 0432115 1 second floor
 0432120 1 BRKN.GLS:RPLMT.ALUM.FIX.EXT.MDW.2ST FL.
 0432121 1 REPAIR ALUMINUM FIX.EXT.MDW.2ND FLOOR
 0432122 1 REPLACE ALUMINUM FIXED EXT.MDW.2ND FLOOR
 0432125 1 third + floors
 0432130 1 BRKN.GLS:RPLMT.ALUM.FIX.EXT.MDW.3RD+FL.
 0432131 1 REPAIR ALUMINUM FIXED EXT.MDW.3RD+FLOORS
 0432132 1 REPLACE ALUMINUM FIXED EXT.MDW.3RD+FLOOR
 0432135 1 STEEL FRAME (PAINTED) FIXED WINDOW
 0432200 1 first floor
 0432210 1 REPAIR STEEL FRAME(PNTD)EXT.MDW.1ST FLOOR
 0432211 1 REFINISH STEEL FRAME(PNT)EXT.MDW.1ST FL.
 0432214 1 REPLACE STEEL FRAME(PNTD)EXT.MDW.1ST FL.
 0432215 1 REFIN.RPLC.STEEL FRM.FIX.EXT.MDW.1ST FL.
 0432216 1 second floor
 0432220 1 REPR.STEEL FRAME FIX.EXT.MDW.2ND FLOOR
 0432221 1 REFIN.STEEL FRAME FIX.EXT.MDW.2ND FLOOR
 0432224 1 REPLC.STEEL FRAME FIX.EXT.MDW.2ND FLOOR
 0432225 1 REFIN.RPLC.STEEL FRM.FIX.EXT.MDW.2ND FL.
 0432226 1 third + floors
 0432230 1 REPAR.STEEL FRAME FIX.EXT.MDW.3RD+FLOORS
 0432231 1

Cases No : Unit of Measure : Description

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0432234 1 REFINISH STEEL FRAME FIX.EXT. WDW.3RD+FL.
 0432235 1 REPLACE STEEL FRAME FIX.EXT. WDW.3RD+FLS.
 0432236 1 REFIN. RPLC. STEEL FRM. FIX. EXT. WDW. 3RD+FL.
 0432300 1 WOOD FRAME (PAINTED) FIXED WINDOW
 0432310 1 first floor
 0432311 1 REPAIR WOOD FRAME FIX.EXT. WDW. 1ST FLOOR
 0432314 1 REFINISH WOOD FRAME FIX.EXT. WDW. 1ST FLR.
 0432315 1 REPLACE WOOD FRAME FIX.EXT. WDW. 1ST FLOOR
 0432316 1 REFIN. RPLC. WOOD FRM. FIX. EXT. WDW. 1ST FLR.
 0432320 1 second floor
 0432321 1 REPAIR WOOD FRAME FIXED EXT. WDW. 2ND FL.
 0432324 1 REFINISH WOOD FRAME FIX.EXT. WDW. 2ND FLOOR
 0432325 1 REPLACE WOOD FRAME FIX.EXT. WDW. 2ND FLOOR
 0432326 1 REFIN. RPLC. WOOD FRM. FIX. EXT. WDW. 2ND FLR.
 0432330 1 third + floors
 0432331 1 REPAIR WOOD FRAME FIX.EXT. WDW. 3RD FLOORS
 0432334 1 REPAIR WOOD FRAME FIX.EXT. WDW. 3RD+FLORS
 0432335 1 REPLACE WOOD FRAME FIX.EXT. WDW. 3RD+FLRS.
 0432336 1 REFIN. RPLC. WOOD FRM. FIX. EXT. WDW. 3RD+FLS.
 0432400 1 PLASTIC (WOOD FRAME) FIXED WINDOW
 0432410 1 first floor
 0432411 1 BRKN. GLS: RPLMT. PLASTIC(WD. CR) FIX. 1ST FL.
 0432412 1 REPR. PLAST(WD. CR) FRM. FIX. EXT. WDW. 1ST FL.
 0432415 1 RPLC. PLAST(WD. CR) FRM. FIX. EXT. WDW. 1ST FL.
 0432420 1 second floor
 0432421 1 BRKN. GLS: RPLMT. PLASTIC(WD. CR) FIX. 2ND FL.
 0432422 1 REPR. PLAST(WD. CR) FRM. FIX. EXT. WDW. 2ND FL.
 0432425 1 RPLC. PLAST(WD. CR) FRM. FIX. EXT. WDW. 2ND FL.
 0432430 1 third + floors
 0432431 1 BRKN. GLS: RPLMT. PLASTIC(WD. CR) FIX. 3RD+FL.
 0432432 1 REPR. PLAST(WD. CR) FRM. FIX. EXT. WDW. 3RD+FL.
 0432435 1 RPLC. PLAST(WD. CR) FRM. FIX. EXT. WDW. 3RD FL.
 0432500 1 GLASS BLOCK FIXED WINDOW
 0432510 1 first floor
 0432511 1 BRKN. GLS: RPLMT. GLASS BLOCK FIX. 1ST FL.
 0432512 1 REPAIR GLASS BLOCK FIX.EXT. WDW. 1ST FLOOR
 0432515 1 REPLACE GLASS BLOCK FIX.EXT. WDW. 1ST FLR.
 0432520 1 second floor
 0432521 1 BRKN. GLS: RPLMT. GLASS BLOCK FIX. 2ND FLR.
 0432522 1 REPAIR GLASS BLOCK FIX.EXT. WDW. 2ND FLOOR
 0432525 1 REPLACE GLASS BLOCK FIX.EXT. WDW. 2ND FLR.
 0432530 1 third + floors
 0432531 1 BRKN. GLS: RPLMT. GLASS BLOCK FIX. 3RD+FL.
 0432532 1 REPAIR GLASS BLOCK FIX.EXT. WDW. 3RD+FLRS.
 0432535 1 REPLACE GLASS BLOCK FIX.EXT. WDW. 3RD+FLS.
 0432600 1 DOUBLE PANE ALUMINUM FIXED WINDOW
 0432610 1 first floor
 0432611 1 BRKN. GLS: RPLMT. ALUM. FIX(DBL)EXT. 1ST FLR.
 0432612 1 REPAIR ALUMINUM FIX(DBL)EXT. WDW. 1ST FL.
 0432615 1 REPLACE ALUMINUM FIX(DBL)EXT. WDW. 1ST FL.
 0432620 1 second floor
 0432621 1 BRKN. GLS: RPLMT. ALUM. FIX(DBL)EXT. 1ST FLR.
 0432622 1 REPAIR ALUMINUM FIX(DBL)EXT. WDW. 2ND FLR.
 0432625 1 REPLACE ALUMINUM FIX(DBL)EXT. WDW. 2ND FL.
 0432630 1 third + floors
 0432631 1 BRKN. GLS: RPLMT. ALUM. FIX(DBL)EXT. 3RD+FL.
 0432632 1 REPAIR ALUMINUM FIX(DBL)EXT. WDW. 3RD+FLS.

0432635 1 REPLACE ALUMINUM FIX(DBL)EXT. WDW. 3RD FL.
 0432700 1 DOUBLE PANE STEEL FIXED WINDOW
 0432710 1 first floor
 0432711 1 REPAIR STEEL FRM(DBL)FIX.EXT. WDW. 1ST FL.
 0432714 1 REFIN. STEEL FRM(DBL)FIX.EXT. WDW. 1ST FLR.
 0432715 1 REPLCE. STEEL FRM(DBL)FIX.EXT. WDW. 1ST FL.
 0432716 1 RFN. RPLC. STL. FRM(DBL)FIX.EXT. WDW. 1ST FL.
 0432720 1 second floor
 0432721 1 REPAIR STEEL FRM(DBL)FIX.EXT. WDW. 2ND FL.
 0432724 1 REFIN. STEEL FRM(DBL)FIX.EXT. WDW. 2ND FLR.
 0432725 1 REPLCE. STEEL FRM(DBL)FIX.EXT. WDW. 2ND FL.
 0432726 1 RFN. RPLC. STL. FRM(DBL)FIX.EXT. WDW. 2ND FL.
 0432730 1 third + floors
 0432731 1 REPAIR STEEL FRM(DBL)FIX.EXT. WDW. 3RD+FL.
 0432734 1 REFIN. STEEL FRM(DBL)FIX.EXT. WDW. 3RD+FLS.
 0432735 1 REPLCE. STEEL FRM(DBL)FIX.EXT. WDW. 3RD+FL.
 0432736 1 RFN. RPLC. STL. FRM(DBL)FIX.EXT. WDW. 3RD+FL.
 0432800 1 DOUBLE PANE WOOD FRAME FIXED WINDOW
 0432810 1 first floor
 0432811 1 REPAIR WOOD FRM(DBL)FIX.EXT. WDW. 1ST FLR.
 0432814 1 REFIN. WOOD FRM(DBL)FIX.EXT. WDW. 1ST FLR.
 0432815 1 REPLCE. WOOD FRM(DBL)FIX.EXT. WDW. 1ST FLR.
 0432816 1 RFN. RPLC. WOOD FRM(DBL)FIX.EXT. WDW. 1ST FL
 0432820 1 second floor
 0432821 1 REPAIR WOOD FRM(DBL)FIX.EXT. WDW. 2ND FLR.
 0432824 1 REFIN. WOOD FRM(DBL)FIX.EXT. WDW. 2ND FL.
 0432825 1 REPLCE. WOOD FRM(DBL)FIX.EXT. WDW. 2ND FL.
 0432826 1 RFN. RPLC. WOOD FRM(DBL)FIX.EXT. WDW. 2ND FL
 0432830 1 third + floors
 0432831 1 REPAIR WOOD FRM(DBL)FIX.EXT. WDW. 3RD+FLS.
 0432834 1 REFIN. WOOD FRM(DBL)FIX.EXT. WDW. 3RD+FLS.
 0432835 1 REPLCE. WOOD FRM(DBL)FIX.EXT. WDW. 3RD+FL.
 0432836 1 RFN. RPLC. WOOD FRM(DBL)FIX.EXT. WDW. 3RD+FL
 0432900 1 DOUBLE PANE PLASTIC FRAME FIXED WINDOW
 0432910 1 first floor
 0432911 1 BRKN. GLS: RPLMT. PLASTIC(WD. CR) FIX. 1ST FL.
 0432912 1 REPR. PLAST(WD. CR) DBL. FIX. EXT. WDW. 1ST FL.
 0432915 1 RPLC. PLAST(WD. CR) DBL. FIX. EXT. WDW. 1ST FL.
 0432920 1 second floor
 0432921 1 BRKN. GLS: RPLMT. PLASTIC(WD. CR) FIX. 2ND FL.
 0432922 1 REPR. PLAST(WD. CR) DBL. FIX. EXT. WDW. 2ND FL.
 0432925 1 RPLC. PLAST(WD. CR) DBL. FIX. EXT. WDW. 2ND FL.
 0432930 1 third + floors
 0432931 1 BRKN. GLS: RPLMT. PLASTIC(WD. CR) FIX. 3RD+FL.
 0432932 1 REPR. PLAST(WD. CR) DBL. FIX. EXT. WDW. 3RD+FL.
 0432935 1 RPLC. PLAST(WD. CR) DBL. FIX. EXT. WDW. 3RD+FL.
 0433000 LOUVERS
 0440000 EXTERIOR PORCHES
 0441000 DECKS
 0441100 2 CONCRETE DECKING - PORCH
 0441102 2 REPAIR CONCRETE DECKING EXTERIOR PORCH
 0441103 2 REFINISH REPAIRED CONC. DECKING EXT. PORCH
 0441104 2 REFINISH CONCRETE DECKING EXTERIOR PORCH
 0441105 2 REPLACE CONCRETE DECKING EXTERIOR PORCH
 0441106 2 REFINISH REPLACED CONC. DECKING EXT. PORCH
 0441200 2 WOOD DECKING - PORCH

Cases No : Unit of Measure : Description

0441202 2 REPAIR WOOD DECKING EXTERIOR PORCH
 0441203 2 REFINISH REPAIRED WOOD DECKING EXT. PORCH
 0441204 2 REFINISH WOOD DECKING EXTERIOR PORCH
 0441205 2 REPLACE WOOD DECKING EXTERIOR PORCH
 0441206 2 REFINISH REPLACED DECKING EXTERIOR PORCH
 0441300 2 METAL DECKING-PORCH
 0441302 2 REPAIR METAL DECKING EXTERIOR PORCH
 0441303 2 REFINISH REPAIRED METAL DECK.EXT. PORCH
 0441304 2 REFINISH METAL DECKING EXTERIOR PORCH
 0441305 2 REPLACE METAL DECKING EXTERIOR PORCH
 0441306 2 REFINISH REPLACED METAL DECK.EXT. PORCH
 0442000 RAILINGS
 0442100 3 WROUGHT IRON EXT. PORCH RAILING
 0442102 3 REPAIR WROUGHT IRON RAILING EXT. PORCH
 0442103 3 REFIN. REPRD. WROUGHT IRON RAIL. EXT. PORCH
 0442104 3 REFINISH WROUGHT IRON RAILING EXT. PORCH
 0442105 3 REPLACE WROUGHT IRON RAILING EXT. PORCH
 0442106 3 REFIN. REPLCD. WROUGHT IRON RAIL. EXT. PORCH
 0442200 3 WOOD EXTERIOR PORCH RAILING
 0442202 3 REPAIR WOOD RAILING EXTERIOR PORCH
 0442203 3 REFINISH REPAIRED WOOD RAILING EXT. PORCH
 0442204 3 REFINISH WOOD RAILING EXTERIOR PORCH
 0442205 3 REPLACE WOOD RAILING EXTERIOR PORCH
 0442206 3 REFINISH REPLACED WOOD RAILING EXT. PORCH
 0443000 SUPPORT MEMBERS
 0443100 2 CONCRETE EXTERIOR PORCH SUPPORTS
 0443102 2 REPAIR CONCRETE SUPPORTS EXTERIOR PORCH
 0443103 2 REFINISH REPAIRED CONCR. SUPPT. EXT. PORCH
 0443104 2 REFINISH CONCRETE SUPPORTS EXT. PORCH
 0443105 2 REPLACE CONCRETE SUPPORTS EXTERIOR PORCH
 0443106 2 REFINISH REPLACED CONCR. SUPPT. EXT. PORCH
 0443200 2 WOOD EXTERIOR PORCH SUPPORTS
 0443202 2 REPAIR WOOD SUPPORTS EXTERIOR PORCH
 0443203 2 REFINISH REPAIRED WOOD SUPPORT EXT. PORCH
 0443204 2 REFINISH WOOD SUPPORTS EXTERIOR PORCH
 0443205 2 REPLACE WOOD SUPPORTS EXTERIOR PORCH
 0443206 2 REFINISH REPLACED WOOD SUPPT. EXT. PORCH
 0443300 2 CLAY BRICK EXTERIOR PORCH SUPPORTS
 0443302 2 REPAIR CLAY BRICK SUPPORTS EXT. PORCH
 0443303 2 REFIN. REPRD. CLAY BRICK SUPPT. EXT. PORCH
 0443304 2 REFINISH CLAY BRICK SUPPORTS EXT. PORCH
 0443305 2 REPLACE CLAY BRICK SUPPORTS EXTER. PORCH
 0443306 2 REFIN. REPLCD. CLAY BRICK SUPPT. EXT. PORCH
 0444000 COLUMNS
 0444100 3 METAL EXTERIOR PORCH COLUMNS
 0444102 3 REPAIR METAL COLUMN EXTERIOR PORCH
 0444103 3 REFINISH REPAIRED METAL COLUMN EXT. PORCH
 0444104 3 REFINISH METAL COLUMN EXTERIOR PORCH
 0444105 3 REPLACE METAL COLUMN EXTERIOR PORCH
 0444106 3 REFINISH REPLACED METAL COLUMN EXT. PORCH
 0444200 3 WOOD EXTERIOR PORCH COLUMNS
 0444202 3 REPAIR WOOD COLUMNS EXTERIOR PORCH
 0444203 3 REFINISH REPAIRED WOOD COLUMN EXT. PORCH
 0444204 3 REFINISH WOOD COLUMN EXTERIOR PORCH
 0444205 3 REPLACE WOOD COLUMN EXTERIOR PORCH
 0444206 3 REFINISH REPLACED WOOD COLUMN EXT. PORCH
 0444300 3 CLAY BRICK EXTERIOR PORCH COLUMNS

Cases No : Unit of Measure : Description

0444302 3 REPAIR CLAY BRICK COLUMN EXTERIOR PORCH
 0444303 3 REFIN. REPRD. CLAY BRICK COLUMN EXT. PORCH
 0444304 3 REFINISH CLAY BRICK COLUMN EXTER. PORCH
 0444305 3 REPLACE CLAY BRICK COLUMN EXTERIOR PORCH
 0444306 3 REFIN. REPLCD. CLAY BRICK COLUMN EXT. PORCH
 0450000 EXTERIOR ORNAMENT
 0451000 CORNICES
 0451100 3 STONE EXTERIOR CORNICE
 0451102 3 REPAIR STONE CORNICE EXTERIOR ORNAMENT
 0451105 3 REPLACE STONE CORNICE EXTERIOR ORNAMENT
 0451200 3 WOOD EXTERIOR CORNICE
 0451202 3 REPAIR WOOD CORNICE EXTERIOR ORNAMENT
 0451203 3 REFINISH REPAIRED WOOD CORNICE EXT. ORNMT
 0451204 3 REFINISH WOOD CORNICE EXTERIOR ORNAMENT
 0451205 3 REPLACE WOOD CORNICE EXTERIOR ORNAMENT
 0451206 3 REFINISH REPLACED WOOD CORNICE EXT. ORNMT
 0460000 EXTERIOR STAIRS
 0461000 RAILINGS
 0461100 3 WOOD EXTERIOR STAIR RAILING
 0461102 3 REPAIR WOOD RAILINGS EXTERIOR STAIRS
 0461103 3 REFINISH REPAIRED WOOD RAILING EXT. STAIR
 0461104 3 REFINISH WOOD RAILING EXTERIOR STAIRS
 0461105 3 REPLACE WOOD RAILINGS EXTERIOR STAIRS
 0461106 3 REFINISH REPLACED WOOD RAILING EXT. STAIR
 0461200 3 METAL EXTERIOR STAIR RAILING
 0461202 3 REPAIR METAL RAILING EXTERIOR STAIR
 0461203 3 REFINISH REPAIRED METAL RAILING.EXT. STAIR
 0461204 3 REFINISH METAL RAILING EXTERIOR STAIRS
 0461205 3 REPLACE METAL RAILING EXTERIOR STAIRS
 0461206 3 REFINISH REPLACED METAL RAILING.EXT. STAIR
 0462000 STEPS
 0462100 2 CONCRETE EXTERIOR STEPS
 0462102 2 REPAIR CONCRETE STEPS EXTERIOR STAIR
 0462105 2 REPLACE CONCRETE STEPS EXTERIOR STAIRS
 0462200 2 WOOD EXTERIOR STEPS
 0462202 2 REPAIR WOOD STEPS EXTERIOR STAIR
 0462203 2 REFINISH REPAIR WOOD STEPS EXTER. STAIR
 0462204 2 REFINISH WOOD STAIRS EXTERIOR STAIRS
 0462205 2 REPLACE WOOD STEPS EXTERIOR STAIRS
 0462206 2 REFINISH REPLACE WOOD STEPS EXTER. STAIR
 0462300 2 METAL EXTERIOR STEPS
 0462302 2 REPAIR METAL STEPS EXTERIOR STAIR
 0462303 2 REFINISH REPAIRED METAL STEPS EXT. STAIR
 0462304 2 REFINISH METAL STEPS EXTERIOR STAIR
 0462305 2 REPLACE STEPS
 0462306 2 REFINISH REPLACED METAL STEPS EXT. STAIR
 0462400 2 MASONRY EXTERIOR STEPS (UNPAINTED)
 0462402 2 REPAIR MASONRY STEP UNPAINTED EXT. STAIR
 0462405 2 REPLACE MASONRY STEP UNPAINTED EXT. STAIR
 0462500 2 MASONRY EXTERIOR STEPS (PAINTED)
 0462502 2 REPAIR MASONRY STEP PAINTED EXT. STAIR
 0462503 2 REFIN. REPRD. MASONRY STEP PNTD. EXT. STAIR
 0462504 2 REFINISH MASONRY STEPS PAINTED EXT. STAIR
 0462505 2 REPLACE MASONRY STEPS PAINTED EXT. STAIR
 0462506 2 REFIN. REPLCD. MASONRY STEP PNTD. EXT. STAIR

Cases No : Unit of Measure : Description

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0462600 2 QUARRY TILE EXTERIOR STEPS
 0462602 2 REPAIR QUARRY TILE STEPS EXTERIOR STAIR
 0462605 2 REPLACE QUARRY TILE STEPS EXTERIOR STAIR
 0470000 EXTERIOR HARDWARE
 0471000 HINGE
 0471100 1 BRASS EXTERIOR HINGE
 0471105 1 REPLACE BRASS HINGE EXTERIOR HARDWARE
 0472000 LOCKSET
 0472100 1 BRASS EXTERIOR LOCKSET
 0472105 1 REPLACE BRASS LOCKSET EXTERIOR HARDWARE
 0473000 DOOR CLOSER
 0473100 1 BRASS EXTERIOR DOOR CLOSER
 0473105 1 REPLACE BRASS CLOSER EXTERIOR HARDWARE
 0474000 DEAD BOLT
 0474100 1 BRASS EXTERIOR DEAD BOLT
 0474105 1 REPLACE BRASS DEADBOLT EXTERIOR HARDWARE
 0475000 WEATHERSTRIPPING
 0475100 1 BRASS EXTERIOR WEATHERSTRIPPING
 0475105 1 REPLACE BRASS WEATHERSTRIPPING EXT. HRDWR
 0476000 EXIT BOLT (PANIC BAR)
 0476100 1 METAL EXIT BOLT
 0476105 1 REPLACE METAL EXITBOLT EXTERIOR HARDWARE
 0500000 INTERIOR CONSTRUCTION
 0510000 INTERIOR PARTITIONS-FIXED
 0511000 DRYWALL
 0512000 MASONRY
 0513000 CONCRETE
 0520000 INTERIOR PARTITIONS-MOVABLE
 0521000 MOVABLE METAL PARTITIONS
 0521100 2 STEEL PARTITIONS
 0521102 2 REPAIR STEEL INT. PARTITION
 0521105 2 REPLACE STEEL INT. PARTITIONS
 0522000 MOVABLE FABRIC PARTITIONS
 0522100 2 FABRIC PARTITION
 0522102 2 REPAIR FABRIC INT. PARTITIONS
 0522105 2 REPLACE FABRIC INT. PARTITIONS
 0530000 INTERIOR DOORS
 0531000 METAL DOORS
 0531100 1 STEEL INTERIOR DOORS
 0531102 1 REPAIR STEEL (PAINTED) INTERIOR DOOR
 0531104 1 REFINISH STEEL (PAINTED) INTERIOR DOORS
 0531105 1 REPLACE STEEL (PAINTED) INTERIOR DOORS
 0531106 1 REFIN. REPLC. STEEL (PAINTED) INTERIOR DOOR
 0532000 FULLY GLAZED DOORS
 0532100 1 SLIDING GLASS INTERIOR DOOR
 0532101 1 BRKN. GLASS: REPLMNT. ALUM. SLIDING. INT. DOOR
 0532102 1 REPAIR ALUMINIUM SLIDING INTERIOR DOORS
 0532105 1 REPLACE ALUMINIUM SLIDING INTERIOR DOORS
 0532200 1 WOOD FRAME (PAINTED) INTERIOR DOOR
 0532201 1 BRKN. GLASS: REPLMNT. WOOD FRM (PND) INT. DOOR
 0532202 1 REPAIR WOOD FRAME (PAINTED) INTERIOR DOOR

0532204 1 REFINISH WOOD FRAME (PAINTED) INTER. DOOR
 0532205 1 REPLACE WOOD FRAME (PAINTED) INTERIOR DOOR
 0532206 1 REFIN. REPLCD. WOOD FRAME (PAINTED) INT. DOOR
 0533000 WOOD DOORS
 0533100 1 HOLLOW CORE INTERIOR DOOR
 0533102 1 REPAIR HOLLOW CORE (PNTD) INTERIOR DOOR
 0533104 1 REFINISH HOLLOW CORE (PAINTED) INTER. DOOR
 0533105 1 REPLACE HOLLOW CORE (PAINTED) INTER. DOOR
 0533106 1 REFIN. REPLC. HOLLOW CORE (PAINTED) INT. DOOR
 0533200 1 SOLID CORE INTERIOR DOOR
 0533202 1 REPAIR SOLID CORE (PNTD) INTERIOR DOOR
 0533204 1 REFINISH SOLID CORE (PAINTED) INTER. DOOR
 0533205 1 REPLACE SOLID CORE (PAINTED) INTERIOR DOOR
 0533206 1 REFIN. REPLC. SOLID CORE (PAINTED) INTR. DOOR
 0534000 SPECIAL DOORS
 0534100 1 BI-FOLD INTERIOR DOOR
 0534110 1 PANELED DOOR
 0534112 1 REPAIR PANELED (PAINTED) INTERIOR DOOR
 0534114 1 REFINISH PANELED (PAINTED) INTERIOR DOOR
 0534115 1 REPLACE PANELED (PAINTED) INTERIOR DOORS
 0534116 1 REFIN. REPLC. PANELED (PAINTED) INTER. DOOR
 0534120 1 LOUVERED DOOR
 0534122 1 REPAIR LOUVERED (PAINTED) INTERIOR DOORS
 0534124 1 REFINISH LOUVERED (PAINTED) INTERIOR DOOR
 0534125 1 REPLACE LOUVERED (PAINTED) INTERIOR DOOR
 0534126 1 REFIN. REPLC. LOUVERED (PAINTED) INTER. DOOR
 0540000 INTERIOR WINDOWS
 0541000 INTERIOR WINDOWS
 0550000 FIREPLACES
 0551000 CHIMNEY
 0551100 2 CLAY BRICK CHIMNEY, FIREPLACE
 0551102 2 REPAIR CLAY BRICK CHIMNEY - FIREPLACES
 0551105 2 REPLACE CLAY BRICK CHIMNEY - FIREPLACES
 0551200 2 CONCRETE CHIMNEY, FIREPLACE
 0551202 2 REPAIR CONCRETE BRICK CHIMNEY- FIREPLACE
 0551205 2 REPLACE CONCRETE BRICK CHIMNEY- FIREPLACE
 0551300 2 STONE CHIMNEY, FIREPLACE
 0551302 2 REPAIR STONE CHIMNEY - FIREPLACES
 0551305 2 REPLACE STONE CHIMNEY - FIREPLACES
 0552000 MANTEL
 0552100 3 WOOD MANTEL
 0552102 3 REPAIR WOOD MANTEL - FIREPLACES
 0552103 3 REFINISH REPAIRED WOOD MANTEL- FIREPLACE
 0552104 3 REPLACE WOOD MANTEL - FIREPLACE
 0552105 3 REFINISH REPLACED WOOD MANTEL- FIREPLACE
 0552200 3 CONCRETE MANTEL
 0552202 3 REPAIR CONCRETE MANTEL - FIREPLACE
 0552205 3 REPLACE CONCRETE MANTEL - FIREPLACE
 0552300 3 STONE MANTEL
 0552302 3 REPAIR STONE MANTEL - FIREPLACE
 0552305 3 REPLACE STONE MANTEL - FIREPLACE
 0553000 FINISHES
 0553100 2 CLAY BRICK FINISH, FIREPLACE
 0553102 2 REPAIR BRICK VENEER - FIREPLACE

Cases No : Unit of Measure : Description

0553103 2 REFINISH REPAIRED BRICK VENEER-FIREPLACE
 0553104 2 REFINISH BRICK VENEER - FIREPLACE
 0553105 2 REPLACE CLAY BRICK - FIREPLACE
 0553106 2 REFIN.REPLC.CLAY BRICK VENEER-FIREPLACE
 0553200 2 CONCRETE BRICK FINISH, FIREPLACE
 0553202 2 REPAIR CONCRETE BRICK VENEER, FIREPLACE
 0553203 2 REFIN.REPRD.CONC.BRICK VENEER-FIREPLACE
 0553204 2 REFINISH CONCRETE BRICK VENEER-FIREPLACE
 0553205 2 REPLACE CONCRETE BRICK VENEER-FIREPLACE
 0553206 2 REFIN.REPLCD.CONC.BRICK VENEER-FIREPLACE
 0553300 2 PLASTER FINISH, FIREPLACE
 0553302 2 REPAIR PLASTER SURFACE - FIREPLACE
 0553303 2 REFIN.REPAIR PLASTER SURFACE-FIREPLACE
 0553304 2 REFINISH PLASTER SURFACE - FIREPLACE
 0553305 2 REPLACE PLASTER SURFACE - FIREPLACE
 0553306 2 REFIN.REPLCD.PLASTER SURFACE-FIREPLACE
 0553400 2 WOOD FINISH, FIREPLACE
 0553402 2 REPAIR WOOD SURFACE - FIREPLACE
 0553403 2 REFINISH REPAIRED WOOD SURFACE-FIREPLACE
 0553404 2 REFINISH WOOD SURFACE - FIREPLACE
 0553405 2 REPLACE WOOD SURFACE - FIREPLACE
 0553406 2 REFINISH REPAIRED WOOD SURFACE-FIREPLACE
 0554000 FIREBRICK
 0554100 2 FIREBRICK, FIREPLACE
 0554102 2 REPAIR FIREBRICK - FIREPLACE
 0554105 2 REPLACE FIREBRICK - FIREPLACE
 0560000 INTERIOR ORNAMENTS
 0561000 INTERIOR TRIM
 0561100 3 WOOD TRIMMING
 0561102 3 REPAIR WOOD TRIM - INTERIOR ORNAMENT
 0561103 3 REFIN.REPRD.WOOD TRIM-INTERIOR ORNAMENT
 0561104 3 REFINISH WOOD TRIM - INTERIOR ORNAMENT
 0561105 3 REPLACE WOOD TRIM - INTERIOR ORNAMENT
 0561106 3 REFIN.REPLCD.WOOD TRIM-INTERIOR ORNAMENT
 0561200 3 METAL TRIMMING
 0561202 3 REPAIR METAL TRIM - INTERIOR ORNAMENT
 0561203 3 REFINISH REPAIRED METAL TRIM-INTERIOR ORNAMENT
 0561204 3 REFINISH METAL TRIM - INTERIOR ORNAMENT
 0561205 3 REPLACE METAL TRIM - INTERIOR ORNAMENT
 0561206 3 REFIN.REPLC.METAL TRIM-INTERIOR ORNAMENT
 0561300 3 TERRAZZO TRIMMING
 0561302 3 REPAIR TERRAZZO TRIM - INTERIOR ORNAMENT
 0561305 3 REPLACE TERRAZZO TRIM-INTERIOR ORNAMENT
 0561400 3 CERAMIC TRIMMING
 0561402 3 REPAIR CERAMIC TRIM - INTERIOR ORNAMENT
 0561405 3 REPLACE CERAMIC TRIM - INTERIOR ORNAMENT
 0561600 3 RUBBER / VINYL TRIMMING
 0561602 3 REPAIR RUBBER TRIM - INTERIOR ORNAMENT
 0561605 3 REPLACE RUBBER TRIM - INTERIOR ORNAMENT
 0570000 INTERIOR STAIRS
 0571000 RAILINGS
 0571100 3 WOOD INTERIOR RAILINGS
 0571102 3 REPAIR WOOD RAILING - INTERIOR STAIRS
 0571103 3 REFINISH REPAIRED WOOD RAILING INT.STAIR
 0571104 3 REFINISH WOOD RAILING - INTERIOR STAIR

Cases No : Unit of Measure : Description

0571105 3 REPLACE WOOD RAILING - INTERIOR STAIR
 0571106 3 REFIN.REPLC.WOOD RAILING INTERIOR STAIR
 0571200 3 METAL INTERIOR RAILINGS
 0571202 3 REPAIR METAL RAILING - INTERIOR STAIR
 0571203 3 REFIN.REPAIRED METAL RAILING INTER.STAIR
 0571204 3 REFINISH METAL RAILING - INTERIOR STAIR
 0571205 3 REPLACE METAL RAILING - INTERIOR STAIR
 0571206 3 REFIN.REPAIRED METAL RAILING INTER.STAIR
 0572000 STEPS
 0572100 2 CONCRETE INTERIOR STEPS
 0572102 2 REPAIR CONCRETE STEPS - INTERIOR STAIR
 0572105 2 REPLACE CONCRETE STEPS - INTERIOR STAIR
 0572200 2 WOOD INTERIOR STEPS
 0572202 2 REPAIR WOOD STEPS -INTERIOR STAIR
 0572203 2 REFIN.REPAIRED WOOD STEPS INTERIOR STAIR
 0572204 2 REFINISH WOOD STEPS - INTERIOR STAIR
 0572205 2 REPLACE WOOD STEPS - INTERIOR STAIR
 0572206 2 REFIN.REPAIRED WOOD STEPS INTERIOR STAIR
 0572300 2 METAL INTERIOR STEPS
 0572302 2 REPAIR METAL STEPS - INTERIOR STAIR
 0572303 2 REFIN.REPAIRED.METAL STEPS INTERIOR STAIR
 0572304 2 REFINISH METAL STEPS - INTERIOR STAIR
 0572305 2 REPLACE METAL STEPS - INTERIOR STAIR
 0572306 2 REFIN.REPLCD.METAL STEPS INTERIOR STAIR
 0572400 2 MASONRY INTERIOR STEPS (UNPAINTED)
 0572402 2 REPAIR MASONRY STEP UNPAINTED INT.STAIR
 0572405 2 REPLACED MASONRY STEP UNPAINTD.INT.STAIR
 0572500 2 MASONRY INTERIOR STEPS (PAINTED)
 0572502 2 REPAIR MASONRY STEPS PAINTED INT.STAIR
 0572503 2 REFIN.REPRD.MASONRY STEP PNTD.INT.STAIR
 0572504 2 REFINISH MASONRY STEPS PAINTED INT.STAIR
 0572505 2 REPLACE MASONRY STEPS PAINTED INT.STAIR
 0572506 2 REFIN.REPLCD.MASONRY STEP PNTD INT.STAIR
 0572600 2 CARPETED INTERIOR STEPS
 0572602 2 REPAIR CARPETED STEPS INTERIOR STAIR
 0572605 2 REPLACE CARPETED STEPS INTERIOR STAIR
 0580000 INTERIOR HARDWARE
 0581000 HINGES
 0581100 1 BRASS INTERIOR HINGES
 0581105 1 REPLACE BRASS HINGE - INTERIOR HARDWARE
 0582000 LOCKSET
 0582100 1 BRASS INTERIOR LOCKSET
 0582105 1 REPLACE BRASS LOCKSET - INTERIOR HARDWARE
 0583000 DOOR CLOSER
 0583100 1 BRASS INTERIOR DOOR CLOSER
 0583105 1 REPLACE BRASS CLOSER - INTERIOR HARDWARE
 0584000 DEAD BOLT
 0584100 1 BRASS INTERIOR DEADBOLT
 0584105 1 REPLACE BRASS DEADBOLT-INTERIOR HARDWARE
 0585000 WEATHERSTRIPPING
 0585100 1 BRASS INTERIOR WEATHERSTRIPPING
 0585105 1 REPLACE BRASS WEATHER STRIPPING-INT.HDR
 0586000 EXIT BOLT (PANIC BAR)
 0586100 1 METAL INTERIOR EXIT BOLT (PANIC BAR)
 0586105 1 REPLACE METAL EXITBOLT-INTERIOR HARDWARE
 0600000 INTERIOR FINISHES

Cases No : Unit of Measure : Description

0610000 WALL FINISHES
 0611000 GYPSUM & PLASTER PRODUCTS
 0611100 2 PLASTER WALL FINISH
 0611102 2 REPAIR PLASTER WALL FINISHES
 0611103 2 REFINISH REPAIRED PLASTER WALL FINISH
 0611104 2 REFINISH PLASTER WALL FINISH
 0611105 2 REFINISH PLASTER WALL FINISH
 0611106 2 REFINISH REPAIRED PLASTER WALL FINISH
 0611200 2 SHEETROCK (STIPPLED) WALL FIN.
 0611202 2 REPAIR SHEETROCK (STIPPLED) WALL FINISH
 0611203 2 REFIN. REPAIRED SHEETROCK (STIPPLED) WALL FIN.
 0611204 2 REFINISH SHEETROCK (STIPPLED) WALL FINISH
 0611205 2 REPLACE SHEETROCK (STIPPLED) WALL FINISH
 0611206 2 REFIN. REPLACED SHEETROCK (STIPPLED) WALL FIN.
 0611300 2 SHEETROCK (UNSTIPPLED) WALL FIN.
 0611302 2 REPAIR SHEETROCK (UNSTIPPLED) WALL FINISH
 0611303 2 REFIN. REPAIR SHEETROCK (UNSTIPPLED) WALL FIN.
 0611304 2 REFINISH SHEETROCK (UNSTIPPLED) WALL FINISH
 0611305 2 REPLACE SHEETROCK (UNSTIPPLED) WALL FINISH
 0611306 2 REFIN. REPLACED SHEETROCK (UNSTIPPLED) WALL FIN.
 0612000 MASONRY & TILE PRODUCTS
 0612100 2 CLAY BLOCK WALL FINISH
 0612102 2 REPAIR CLAY BLOCK WALL FINISH
 0612105 2 REPLACE CLAY BLOCK WALL FINISH
 0612200 2 CLAY BLOCK (PAINTED) WALL FINISH
 0612202 2 REPAIR CLAY BLOCK (PAINTED) WALL FINISH
 0612203 2 REFIN. REPAIR CLAY BLOCK (PAINTED) WALL FIN.
 0612204 2 REFINISH CLAY BLOCK (PAINTED) WALL FINISH
 0612205 2 REPLACE CLAY BLOCK (PAINTED) WALL FINISH
 0612206 2 REFIN. REPLACED CLAY BLOCK (PAINTED) WALL FIN.
 0612300 2 CONCRETE BLOCK WALL FINISH
 0612302 2 REPAIR CONCRETE BLOCK WALL FINISH
 0612305 2 REPLACE CONCRETE BLOCK WALL FINISH
 0612400 2 CONCRETE BLOCK (PAINTED) WALL FINISH
 0612402 2 REPAIR CONCRETE BLOCK (PAINTED) WALL FIN.
 0612403 2 REFIN. REPAIRED CONC. BLOCK (PAINTED) WALL FIN.
 0612404 2 REFINISH CONCRETE BLOCK (PAINTED) WALL FIN.
 0612405 2 REPLACE CONCRETE BLOCK (PAINTED) WALL FIN.
 0612406 2 REFIN. REPLACED CONC. BLOCK (PAINTED) WALL FIN.
 0612500 2 CLAY BRICK WALL FINISH
 0612502 2 REPAIR CLAY BRICK WALL FINISH
 0612505 2 REPLACE CLAY BRICK WALL FINISH
 0612600 2 CONCRETE BRICK WALL FINISH
 0612602 2 REPAIR CONCRETE BRICK WALL FINISH
 0612605 2 REPLACE CONCRETE BRICK WALL FINISH
 0612700 2 FIREBRICK WALL
 0612702 2 REPAIR FIREBRICK WALL FINISH
 0612705 2 REPLACE FIREBRICK WALL FINISH
 0612800 2 CERAMIC TILE WALL FIN.
 0612802 2 REPAIR TILE WALL FINISH
 0612805 2 REPLACE TILE WALL FINISH
 0613000 LIQUID FINISHES
 0614000 PAPER, PLASTIC & FABRIC
 0614100 2 FORMICA INTERIOR WALL FIN.
 0614102 2 REPAIR FORMICA WALL FINISH
 0614105 2 REPLACE FORMICA WALL FINISH

Cases No : Unit of Measure : Description

0614200 2 NYLON INTERIOR WALL FIN.
 0614202 2 REPAIR NYLON WALL FINISH
 0614205 2 REPLACE NYLON WALL FINISH
 0614300 2 POLYESTER INTERIOR WALL FIN.
 0614302 2 REPAIR POLYESTER WALL FINISH
 0614305 2 REPLACE POLYESTER WALL FINISH
 0614400 2 VINYL INTERIOR WALL FIN.
 0614402 2 REPAIR VINYL WALL FINISH
 0614405 2 REPLACE VINYL WALL FINISH
 0614500 2 WALLPAPER INTERIOR WALL FIN.
 0614502 2 REPAIR WALLPAPER WALL FINISH
 0614505 2 REPLACE WALLPAPER WALL FINISH
 0615000 WOOD
 0615100 2 PLYWOOD (PAINTED/STAINED) INT. WALL
 0615102 2 REPAIR PLYWOOD (PAINTED) WALL FINISH
 0615103 2 REFIN. REPAIRED PLYWOOD (PAINTED) WALL FINISH
 0615104 2 REFINISH PLYWOOD (PAINTED) WALL FINISH
 0615105 2 REPLACE PLYWOOD (PAINTED) WALL FINISH
 0615106 2 REFIN. REPLACED PLYWOOD (PAINTED) WALL FIN.
 0615200 2 PLYWOOD (UNPAINTED/UNSTAINED) INT. WALL
 0615202 2 REPAIR PLYWOOD (UNFINISHED) WALL FINISH
 0615205 2 REPLACE PLYWOOD (UNFINISHED) WALL FINISH
 0615300 2 TIMBER (FINISHED) INTERIOR WALL
 0615302 2 REPAIR TIMBER (FINISHED) WALL FINISH
 0615303 2 REFIN. REPAIRED TIMBER (FINISHED) WALL FIN.
 0615304 2 REFINISH TIMBER (FINISHED) WALL FINISH
 0615305 2 REPLACE TIMBER (FINISHED) WALL FINISH
 0615306 2 REFIN. REPLACED TIMBER (FINISHED) WALL FIN.
 0615400 2 TIMBER (UNFINISHED) INTERIOR WALL
 0615402 2 REPAIR TIMBER (UNFINISHED) WALL FINISH
 0615405 2 REPLACE TIMBER (UNFINISHED) WALL FINISH
 0615500 2 PANEL (SOLID) INTERIOR WALL
 0615502 2 REPAIR PANEL (SOLID) WALL FINISH
 0615503 2 REFINISH REPAIRED PANEL (SOLID) WALL FIN.
 0615504 2 REFINISH PANEL (SOLID) WALL FINISH
 0615505 2 REPLACE PANEL (SOLID) WALL FINISH
 0615506 2 REFINISH REPLACED PANEL (SOLID) WALL FIN.
 0615600 2 PANEL (LAMINATED) INTERIOR WALL
 0615602 2 REPAIR PANEL (LAMINATED) WALL FINISH
 0615603 2 REFIN. REPAIRED PANEL (LAMINATED) WALL FIN.
 0615604 2 REFINISH PANEL (LAMINATED) WALL FINISH
 0615605 2 REPLACE PANEL (LAMINATED) WALL FINISH
 0615606 2 REFIN. REPLACED PANEL (LAMINATED) WALL FIN.
 0615700 2 BOARD (FINISHED) INTER. WALL
 0615702 2 REPAIR BOARD (FINISHED) WALL FINISH
 0615703 2 REFIN. REPAIRED BOARD (FINISHED) WALL FIN.
 0615704 2 REFINISH BOARD (FINISHED) WALL FINISH
 0615705 2 REPLACE BOARD (FINISHED) WALL FINISH
 0615706 2 REFIN. REPLACED BOARD (FINISHED) WALL FIN.
 0615800 2 BOARD (UNFINISHED) INTER. WALL
 0615802 2 REPAIR BOARD (UNFINISHED) WALL FINISH
 0615805 2 REPLACE BOARD (UNFINISHED) WALL FINISH
 0615900 2 MAINSCOT INTERIOR WALL
 0615902 2 REPAIR MAINSCOT WALL FINISH
 0615903 2 REFINISH REPAIRED MAINSCOT WALL FINISH
 0615904 2 REFINISH MAINSCOT WALL FINISH
 0615905 2 REPLACE MAINSCOT WALL FINISH

Cecae No : Unit of Measure : Description

0615906 2 REFINISH REPLACED WAINSCOT WALL FINISH
 0616000 METAL
 0616100 2 ALUMINUM INTERIOR WALL
 0616105 2 REPLACE ALUMINUM WALL FINISH
 0616200 2 STEEL INTERIOR FINISH (UNPAINTED)
 0616202 2 REPAIR STEEL INT.FINISH(UNPNTD)WALL FIN.
 0616205 2 REPLACE STEEL INT.FINISH(UNPNTD)WALL FIN.
 0616300 2 STEEL INTERIOR FINISH (PAINTED)
 0616302 2 REPAIR STEEL INT.FINISH(PNTD)WALL FINISH
 0616303 2 REFIN.REPRD.STEEL INT.FIN(PNTD)WALL FIN.
 0616304 2 REFINISH STEEL INT.FINISH(PNTD)WALL FIN.
 0616305 2 REPLACE STEEL INT.FINISH(PNTD)WALL FIN.
 0616306 2 REFIN.REPLCD.STEEL INT.FIN(PNTD)WALL FIN.
 0616400 2 WIRE MESH WALL
 0616402 2 REPAIR WIRE MESH WALL FINISH
 0616403 2 REFINISH REPAIRED WIRE MESH WALL FINISH
 0616404 2 REFINISH WIRE MESH WALL FINISH
 0616405 2 REPLACE WIRE MESH WALL FINISH
 0616406 2 REFINISH REPLACED WIRE MESH WALL FINISH
 0617000 GLASS
 0617100 2 GLASS BLOCK INTERIOR WALL
 0617102 2 REPAIR GLASS BLOCK WALL FINISH
 0617105 2 REPLACE GLASS BLOCK WALL FINISH
 0617200 2 PLATE GLASS INTERIOR WALL
 0617202 2 REPAIR PLATE GLASS WALL FINISH
 0617205 2 REPLACE PLATE GLASS WALL FINISH
 0618000 FINISH PACKAGES
 0619000 SPECIAL SURFACES
 0619100 2 STONE INTERIOR WALL
 0619102 2 REPAIR STONE WALL FINISH
 0619105 2 REPLACE STONE WALL FINISH
 0619200 2 ACOUSTICAL INTERIOR WALL TILE
 0619202 2 REPAIR ACOUSTICAL TILE WALL FINISH
 0619203 2 REFIN.REPAIRED ACOUSTICAL TILE WALL FIN.
 0619204 2 REFINISH ACOUSTICAL TILE WALL FINISH
 0619205 2 REPLACE ACOUSTICAL TILE WALL FINISH
 0619206 2 REFIN.REPLACED ACOUSTICAL TILE WALL FIN.
 0619300 2 CORK INTERIOR WALL TILE
 0619302 2 REPAIR CORK TILE WALL FINISH
 0619305 2 REPLACE CORK TILE WALL FINISH
 061A000 CONCRETE
 061A100 2 CONCRETE UNFINISHED INTERIOR WALL
 061A102 2 REPAIR UNFINISHED CONCRETE WALL FINISH
 061A105 2 REPLACE UNFINISHED CONCRETE WALL FINISH
 061A200 2 CONCRETE FINISHED INTERIOR WALL
 061A202 2 REPAIR FINISHED CONCRETE WALL FINISH
 061A204 2 REFINISH FINISHED CONCRETE WALL FINISH
 061A205 2 REPLACE FINISHED CONCRETE WALL FINISH
 0620000 FLOORING & FLOOR FINISHES
 0621000 GYPSUM AND PLASTER PRODUCTS
 0622000 MASONRY & TILE PRODUCTS
 0622100 2 CERAMIC TILE FLOORING
 0622101 2 MINOR REPAIRS TO CERAMIC TILE FLOOR
 0622102 2 REPLACE CERAMIC TILE FLOOR
 0622200 2 QUARRY TILE FLOORING
 0622201 2 MINOR REPAIRS TO QUARRY TILE FLOOR

Cecae No : Unit of Measure : Description

0622202 2 REPLACE QUARRY TILE FLOOR
 0622300 2 BRICK FLOORING
 0622301 2 MINOR REPAIRS TO BRICK FLOOR
 0622302 2 REPLACE BRICK FLOORING
 0623000 LIQUID FINISHES
 0624000 PAPER, PLASTIC & FABRIC
 0625000 WOOD
 0625100 2 WOOD PARQUETRY FLOORING
 0625101 2 MINOR REPAIRS TO WOOD PARQUETRY FLOOR
 0625102 2 SAND AND REFINISH PARQUETRY FLOOR
 0625103 2 REPLACE WOOD PARQUETRY FLOOR
 0625200 2 MAPLE FLOOR
 0625201 2 MINOR REPAIRS TO MAPLE FLOOR
 0625202 2 SAND AND REFINISH MAPLE FLOOR
 0625203 2 REPLACE MAPLE FLOOR
 0625300 2 PLYWOOD FLOOR
 0625301 2 MINOR REPAIRS TO PLYWOOD FLOOR
 0625302 2 REPLACE PLYWOOD FLOOR
 0626000 METAL FLOOR FINISHES
 0626100 2 STEEL FLOORING
 0626101 2 MINOR REPAIRS TO STEEL FLOOR
 0626102 2 REPLACE STEEL DECK FLOORING
 0627000 GLASS
 0628000 FINISH PACKAGES
 0629000 SPECIAL SURFACES
 0629100 2 CARPET FLOOR
 0629101 2 MINOR REPAIRS TO CARPET
 0629102 2 REPLACE CARPET
 0629200 2 CORK TILE FLOORING
 0629201 2 MINOR REPAIR TO CORK TILE FLOORING
 0629202 2 REPLACE CORK TILE FLOORING
 062A000 SYNTHETIC FLOORING FINISHES
 062A100 2 LINOLEUM FLOORING
 062A101 2 MINOR REPAIRS TO LINOLEUM FLOOR
 062A102 2 REPLACE LINOLEUM FLOOR
 062A200 2 VINYL ASBESTOS TILE FLOORING
 062A201 2 MINOR REPAIRS TO VINYL ASB.TILE FLOORING
 062A202 2 REPLACE VINYL ASBESTOS TILE FLOORING
 062A300 2 RUBBER TILE FLOORING
 062A301 2 MINOR REPAIRS TO RUBBER TILE FLOOR
 062A302 2 REPLACE REPLACE RUBBER TILE FLOORING
 062A400 2 VINYL SHEET FLOORING
 062A401 2 MINOR REPAIR VINYL SHEET FLOORING
 062A402 2 REPLACE VINYL SHEET FLOORING
 062A500 2 BITUMINOUS FLOORING
 062A501 2 MINOR REPAIR TO BITUMINOUS FLOORING
 062A502 2 REPLACE BITUMINOUS FLOORING
 062B000 CONCRETE FLOORING FINISHES
 062B100 2 CONCRETE UNFINISHED FLOORING
 062B101 2 MINOR REPAIRS TO CONCRETE FLOOR
 062B102 2 REPLACE UNFINISHED CONCRETE FLOOR
 062B200 2 CONCRETE FINISHED FLOORING
 062B201 2 MINOR REPAIRS TO FINISHED CONCRETE FLOOR
 062B202 2 REFINISH CONCRETE FLOOR
 062B203 2 REPLACE FINISHED CONCRETE FLOOR
 062C000 TERRAZZO
 062C001 2 MINOR REPAIRS TO TERRAZZO FLOOR

Cases No : Unit of Measure : Description

062C002 2 REPLACE TERRAZZO FLOOR
 0630000 CEILINGS & CEILING FINISHES
 0631000 GYPSUM AND PLASTER PRODUCTS
 0631100 2 PLASTER CEILING
 0631102 2 REPAIR PLASTER CEILING FINISH
 0631103 2 REFINISH REPAIRED PLASTER CEILING FINISH
 0631104 2 REFINISH PLASTER CEILING FINISH
 0631105 2 REPLACE PLASTER CEILING FINISH
 0631106 2 REFINISH REPAIRED PLASTER CEILING FINISH
 0631200 2 SHEETROCK (STIPPLED) CEILING
 0631202 2 REPAIR SHEETROCK(STIPPLED)CEILING FINISH
 0631203 2 REFIN.REPAIRED SHEETROCK(STIPD)CLG.FIN.
 0631204 2 REFINISH SHEETROCK(STIPPLED)CEILING FIN.
 0631205 2 REPLACE SHEETROCK(STIPPLED)CEILING FIN.
 0631206 2 REFIN.REPAIRED SHEETROCK(STIPD)CLG.FIN.
 0631300 2 SHEETROCK (UNSTIPPLED) CEILING
 0631302 2 REPAIR SHEETROCK(UNSTIPPLED)CEILING FIN.
 0631303 2 REFIN.REPRD.SHEETROCK(UNSTIPD)CEILG.FIN.
 0631304 2 REFINISH SHEETROCK(UNSTIPPLED)CEILG.FIN.
 0631305 2 REPLACE SHEETROCK(UNSTIPPLD)CEILING FIN.
 0631306 2 REFIN.REPLCD.SHEETROCK(UNSTIPD)CLG.FIN.
 0632000 MASONRY & TILE PRODUCTS
 0632100 2 ACUSTICAL TILE CEILING
 0632102 2 REPAIR ACUSTIC TILE CEILING FINISH
 0632105 2 REPLACE ACUSTIC TILE CEILING FINISH
 0632200 2 ACUSTICAL TILE (DROPPED) CEILING
 0632202 2 REPAIR ACUSTIC TILE(DROPPD)CEILING FIN.
 0632205 2 REPLACE ACUSTIC TILE(DROPPED)CEILG.FIN.
 0632300 2 CERAMIC PAN CEILING
 0632302 2 REPAIR CERAMIC (PAN) CEILING FINISH
 0632305 2 REPLACE CERAMIC (PAN) CEILING FINISH
 0632400 2 CERAMIC TILE CEILING
 0632402 2 REPAIR CERAMIC (TILE) CEILING FINISH
 0632405 2 REPLACE CERAMIC (TILE) CEILING FINISH
 0633000 LIQUID FINISHES
 0634000 PAPER, PLASTER & FABRIC
 0634100 2 PAPER CEILING
 0634102 2 REPAIR PAPER CEILING FINISH
 0634105 2 REPLACE PAPER CEILING FINISH
 0634200 2 PLASTIC CEILING
 0634202 2 REPAIR PLASTIC CEILING FINISH
 0634205 2 REPLACE PLASTIC CEILING FINISH
 0634300 2 FABRIC CEILING
 0634302 2 REPAIR FABRIC CEILING FINISH
 0634305 2 REPLACE FABRIC CEILING FINISH
 0635000 WOOD
 0635100 2 WOOD FINISHED CEILING
 0635102 2 REPAIR WOOD (FINISHED) CEILING FINISH
 0635103 2 REFIN.REPAIRD.WOOD(FINISHED)CEILING FIN.
 0635104 2 REFINISH WOOD(FINISHED)CEILING FINISH
 0635105 2 REPLACE WOOD(FINISHED)CEILING FINISH
 0635106 2 REFIN.REPLCED.WOOD(FINISHED)CEILING FIN.
 0635200 2 WOOD UNFINISHED CEILING
 0635202 2 REPAIR WOOD (UNFINISHED) CEILING FINISH
 0635205 2 REPLACE WOOD(UNFINISHED)CEILING FINISH
 0636000 METAL

Cases No : Unit of Measure : Description

0636100 2 METAL CEILING (PAINTED)
 0636102 2 REPAIR ALUMINIUM PANEL CEILING FINISH
 0636103 2 REFIN.REPRD.ALUMINIUM PANEL CEILING FIN.
 0636104 2 REFINISH ALUMINIUM PANEL CEILING FINISH
 0636105 2 REPLACE ALUMINIUM PANEL CEILING FINISH
 0636106 2 REFIN.REPLCD.ALUMINIUM PANEL CEILG. FIN.
 0637000 GLASS
 0638000 FINISH PACKAGES
 0639000 SPECIAL SURFACES
 0639100 2 ACUSTICAL TILE-SPECIAL PURPOSE
 0639102 2 REPAIR SPEC.PURP.ACUSTIC.TILE CLG.FIN.
 0639105 2 REPLACE SPEC.PURP.ACUSTIC.TILE CLG.FIN.
 0639200 2 ACUSTICAL TILE-TIME DESIGN RATED
 0639202 2 REPAIR ACUSTIC(FIRE RATED)TILE CLG.FIN.
 0639205 2 REPLACE ACUSTIC(FIRE RATE)TILE CLG.FIN.
 063A000 CONCRETE
 063A100 2 CONCRETE, UNFINISHED CEILING
 063A102 2 REPAIR (UNFINISHED)CONCRETE CEILING FIN.
 063A105 2 REPLACE(UNFINISHED)CONCRETE CEILING FIN.
 063A200 2 CONCRETE, FINISHED CEILING
 063A202 2 REPAIR (FINISHED) CONCRETE CEILING FIN.
 063A204 2 REFINISH (FINISHED)CONCRETE CEILING FIN.
 063A205 2 REPLACE (FINISHED) CONCRETE CEILING FIN.
 0800000 PLUMBING
 0810000 SANITARY SYSTEM
 0811000 FIXTURES
 0811100 1 TANKLESS WATER CLOSET
 0811101 1 REPLACE FLUSH VALVE
 0811102 1 UNPLUG CLOGGED LINE
 0811103 1 REPLACE WATER CLOSET
 0811200 1 FLUSH TANK WATER CLOSET
 0811201 1 UNPLUG CLOGGED LINE
 0811202 1 REPLACE WASHER IN BALL COCK
 0811203 1 REPLACE WORN PARTS IN WATER CLOSET.
 0811204 1 INSTALL GASKET IN SPUD CONNECTION.
 0811205 1 REPLACE WATER CLOSET.
 0811300 1 URINAL
 0811301 1 REPLACE FLUSH VALVE
 0811302 1 UNPLUG LINE
 0811303 1 REPLACE URINAL
 0811400 1 LAVATORY, IRON, ENAMEL
 0811401 1 REPLACE WASHER IN SPUD CONNECTION
 0811402 1 REPLACE WASHER IN FAUCET
 0811403 1 REPLACE SUPPORT RODS
 0811404 1 REPLACE FAUCETS
 0811405 1 CLEAN OUT STRAINER AND P TRAP
 0811406 1 REPLACE LAVATORY
 0811500 1 LAVATORY, VITREOUS CHINA
 0811501 1 REPLACE WASHER IN SPUD CONNECTION
 0811502 1 REPLACE WASHER IN FAUCET
 0811503 1 REPLACE SUPPORT RODS
 0811504 1 REPLACE FAUCETS
 0811505 1 CLEAN OUT STRAINER AND P TRAP
 0811506 1 REPLACE LAVATORY

Cases No : Unit of Measure : Description

Cases No	Unit of Measure	Description
0811600	1	LAVATORY, ENAMELED STEEL
0811601	1	REPLACE WASHER IN SPUD CONNECTION
0811602	1	REPLACE WASHER IN FAUCET
0811603	1	REPLACE SUPPORT ROOS
0811604	1	REPLACE FAUCETS
0811605	1	CLEAN OUT STRAINER AND P TRAP
0811606	1	REPLACE LAVATORY
0811700	1	BATH TUB, CAST IRON
0811701	1	INSPECT/CLEAN SHOWER HEAD
0811702	1	REPLACE FAUCET WASHER
0811703	1	REPLACE FAUCETS
0811704	1	RESEAL
0811705	1	REPAIR DIVERTER VALVE
0811706	1	UNSTOP
0811707	1	REPLACE TUB
0811800	1	BATH TUB, ENAMELED STEEL
0811801	1	INSPECT/CLEAN SHOWER HEAD
0811802	1	REPLACE FAUCET WASHER
0811803	1	REPLACE FAUCETS
0811804	1	RESEAL
0811805	1	REPAIR DIVERTER VALVE
0811806	1	UNSTOP
0811807	1	REPLACE TUB
0811900	1	SHOWER, TERRAZO
0811901	1	INSPECT/CLEAN SHOWER HEAD
0811902	1	REPLACE FAUCET WASHER
0811903	1	REPLACE FAUCETS
0811904	1	RESEAL
0811905	1	UNSTOP
0811906	1	REPLACE SHOWER
0811A00	1	SHOWER, ENAMELED STEEL
0811A01	1	INSPECT/CLEAN SHOWER HEAD
0811A02	1	REPLACE FAUCET WASHER
0811A03	1	REPLACE FAUCETS
0811A04	1	RESEAL
0811A05	1	UNSTOP
0811A06	1	REPLACE SHOWER
0811B00	1	SHOWER, PLASTIC
0811B01	1	INSPECT/CLEAN SHOWER HEAD
0811B02	1	REPLACE FAUCET WASHER
0811B03	1	REPLACE FAUCETS
0811B04	1	RESEAL
0811B05	1	UNSTOP
0811B06	1	REPLACE SHOWER AND FITTINGS
0811C00	1	SHOWER, ALUMINUM
0811C01	1	INSPECT/CLEAN SHOWER HEAD
0811C02	1	REPLACE FAUCET WASHER
0811C03	1	REPLACE FAUCETS
0811C04	1	RESEAL
0811C05	1	UNSTOP
0811C06	1	REPLACE SHOWER AND FITTINGS
0811D00	1	SINK, IRON ENAMEL
0811D01	1	REPLACE FAUCET WASHER
0811D02	1	CLEAN TRAP
0811D03	1	REPLACE FAUCETS
0811D04	1	UNSTOP
0811D05	1	REPAIR STRAINER
0811D06	1	REPLACE SINK
0811E00	1	SINK, ENAMELED STEEL
0811E01	1	REPLACE FAUCET WASHER
0811E02	1	CLEAN TRAP
0811E03	1	REPLACE FAUCETS
0811E04	1	UNSTOP
0811E05	1	REPAIR STRAINER
0811E06	1	REPLACE SINK
0811F00	1	SINK, STAINLESS STEEL
0811F01	1	REPLACE FAUCET WASHER
0811F02	1	CLEAN TRAP
0811F03	1	REPLACE FAUCETS
0811F04	1	UNSTOP
0811F05	1	REPAIR STRAINER
0811F06	1	REPLACE SINK
0811G00	1	SINK, PLASTIC
0811G01	1	REPLACE FAUCET WASHER
0811G02	1	CLEAN TRAP
0811G03	1	REPLACE FAUCETS
0811G04	1	UNSTOP
0811G05	1	REPAIR STRAINER
0811G06	1	REPLACE SINK AND FITTINGS
0811H00	1	DRINKING FOUNTAIN
0811H01	1	CHECK/REPAIR REPAIRS
0811H02	1	REPAIR INTERNAL LEAKS
0811H03	1	CORRECT WATER PRESSURE
0811H04	1	REPLACE FREON
0811H05	1	REPAIR DRAIN LEAK
0811H06	1	UNSTOP DRAIN
0811H07	1	REPLACE FOUNTAIN
0811I00	4	SPIGOT
0812000	4	WASTE & VENT
0812100	4	PIPE & FITTINGS
0812101	4	UNCLOG FLOOR DRAIN
0812102	4	UNCLOG MAIN DRAIN
0812103	4	REPLACE PIPE & FITTINGS
0812200	1	FLOOR DRAIN, WITHOUT BUCKET
0812201	1	CLEAN DRAIN
0812202	1	REPLACE STRAINER
0812203	1	REPLACE FLOOR DRAIN
0812300	1	FLOOR DRAIN, WITH BUCKET
0812301	1	CLEAN OUT BUCKET
0812302	1	REPLACE STRAINER
0812303	1	REPLACE FLOOR DRAIN
0813000	4	COLD WATER
0813100	4	PIPE & FITTINGS, STEEL OR CAST IRON
0813101	4	INSTALL NEW GASKET
0813102	4	REPLACE 10 FT. SECTION
0813103	4	REPLACE PIPE AND FITTINGS
0813200	4	PIPE & FITTINGS, COPPER
0813201	4	RESOLDER JOINT
0813202	4	INSTALL 10 FT SECTION
0813203	4	REPLACE PIPE AND FITTINGS
0813300	1	VALVE, NON-DRAIN 3/8" - 1 1/2"
0813301	1	REPACK GLAND
0813302	1	REPLACE OLD VALVE WITH NEW, PARTIAL
0813400	1	VALVE, NON-DRAIN 2"-3"

Cases No : Unit of Measure : Description

0813401 1 REPACK GLAND
 0813402 1 REPLACE OLD VALVE WITH NEW, PARTIAL
 0813500 1 VALVE, NON-DRAIN 4"-6"
 0813501 1 REPACK GLAND
 0813502 1 REMOVE OLD VALVE INSTALL NEW, PARTIAL
 0813600 1 VALVE, DRAIN
 0813601 1 REPACK GLAND
 0813602 1 REPLACE VALVE STEM ASSEMBLY
 0813603 1 REMOVE OLD VALVE, INSTALL NEW
 0813700 1 EXPANSION CHAMBER
 0813701 1 REFILL
 0813702 1 REMOVE OLD CHAMBER INSTALL NEW
 0813800 1 WATER METER
 0813801 1 OVERHAUL
 0813802 1 INSULATION, PIPE
 0813900 4 REPAIR BROKEN INSULATION
 0813901 4 REMOVE OLD INSULATION & REPLACE WITH NEW
 0813902 1 CIRCULATOR PUMP 1 1/2 HP
 0813A00 1 OVERHAUL PUMP, REPLACE SEALS
 0813A01 1 INSPECT/CHECK PUMP/MOTOR OPERATION, LUBR
 0813A02 1 REPLACE PUMP/MOTOR ASSEMBLY, PARTIAL
 0813A03 1 CIRCULATOR PUMP 1/6 HP
 0813B00 1 OVERHAUL PUMP, REPLACE SEALS
 0813B01 1 INSPECT/CHECK PUMP/MOTOR OPERATION, LUBR
 0813B02 1 REPLACE PUMP/MOTOR ASSEMBLY, PARTIAL
 0813B03 1 CIRCULATOR PUMP 1/2 HP
 0813C00 1 OVERHAUL PUMP, REPLACE SEAL OR BEARING
 0813C01 1 INSPT/CHECK PUMP/MOTOR OPER, LUBR CHECK A
 0813C02 1 REPLACE PUMP/MOTOR ASSEMBLY, PARTIAL
 0813C03 1 PIPE & FITTINGS, STEEL OR CAST IRON
 0814000 4 PIPE & FITTINGS, STEEL OR CAST IRON
 0814100 4 INSTALL NEW GASKET
 0814102 4 INSTALL 10 FT. SECTION
 0814103 4 REPLACE PIPE AND FITTINGS
 0814200 4 PIPE & FITTINGS, COPPER
 0814201 4 RESOLDER JOINT
 0814202 4 INSTALL 10 FT. SECTION
 0814203 4 REPLACE PIPE AND FITTINGS
 0814300 1 VALVE, NON DRAIN 3/8"-1 1/2"
 0814301 1 REPACK GLAND
 0814302 1 REPLACE OLD VALVE WITH NEW, PARTIAL
 0814400 1 VALVE, NON DRAIN 2"-3"
 0814401 1 REPACK GLAND
 0814402 1 REPLACE OLD VALVE WITH NEW, PARTIAL
 0814500 1 VALVE, NON DRAIN 4"-6"
 0814501 1 REPACK GLAND
 0814502 1 REMOVE OLD VALVE INSTALL NEW, PARTIAL
 0814600 1 VALVE, DRAIN
 0814601 1 REPACK GLAND
 0814602 1 REPLACE VALVE STEM ASSEMBLY
 0814603 1 REMOVE OLD VALVE, INSTALL NEW
 0814700 1 EXPANSION CHAMBER
 0814701 1 REFILL
 0814702 1 REMOVE OLD CHAMBER INSTALL NEW
 0814800 4 INSULATION, PIPE
 0814801 4 REPAIR BROKEN INSULATION

Cases No : Unit of Measure : Description

0814802 4 REMOVE OLD INSULATION & REPLACE WITH NEW
 0814900 1 CIRCULATOR PUMP, 1 1/2 HP
 0814901 1 OVERHAUL PUMP, REPLACE SEALS
 0814902 1 INSPECT/CHECK PUMP/MOTOR OPERATION, LUBR
 0814903 1 REPLACE PUMP/MOTOR ASSEMBLY, PARTIAL
 0814A00 1 CIRCULATOR PUMP, 1/6 HP
 0814A01 1 OVERHAUL PUMP, REPLACE SEALS
 0814A02 1 INSPECT/CHECK PUMP/MOTOR OPERATION, LUBR
 0814A03 1 REPLACE PUMP/MOTOR ASSEMBLY, PARTIAL
 0814B00 1 CIRCULATOR PUMP, 1/2 HP
 0814B01 1 OVERHAUL PUMP, REPLACE SEAL OR BEARING
 0814B02 1 INSPT/CHECK PUMP/MOTOR OPER, LUBR CHECK
 0814B03 1 REPLACE PUMP/MOTOR ASSEMBLY, PARTIAL
 0814C00 1 STEAM CONVERTOR, DOMESTIC HOT WATER
 0814C01 1 REPAIR STEAM LEAK
 0814C02 1 INSEPT FOR LEAKS.
 0814C03 1 REPLACE STEAM CONVERTER
 0814D00 1 HOT WATER HTR, GAS/OIL 30 GAL
 0814D01 1 CLEAN AND SERVICE
 0814D03 1 REPLACE HOT WATER HEATER
 0814E00 1 HOT WATER HTR, GAS/OIL 75 GAL
 0814E01 1 OVERHAUL HEATER
 0814E02 1 CLEAN & SERVICE
 0814E03 1 REPLACE HOT WATER HEATER
 0814F00 1 HOT WATER HTR, GAS/OIL 1000 GPH RECOVERY
 0814F01 1 MINOR REPAIRS, ADJUSTMENTS
 0814F02 1 CLEAN & SERVICE
 0814F03 1 REPLACE HOT WATER HEATER.
 0814G00 1 HOT WATER HTR, GAS/OIL 8-120GPH RECOVERY
 0814G01 1 DRAIN & FLUSH
 0814G02 1 CHECK OPERATION
 0814G03 1 REPLACE HEATER
 0814H00 1 HOT WATER HEATER ELEC. 120 GAL.
 0814H01 1 DRAIN AND FLUSH HOT WATER HTR.
 0814H02 1 CHECK OPERATION-HOT WATER HTR.
 0814H03 1 REPLACE HOT WATER HEATER
 0814I00 1 HOT WATER HEATER ELEC. 300 GAL.
 0814I01 1 DRAIN AND FLUSH HOT WATER HTR.
 0814I02 1 CHECK OPERATION-HOT WATER HTR.
 0814I03 1 REPLACE HOT WATER HEATER
 0814J00 1 HOT WATER HEATER ELEC. 1000 GAL.
 0814J01 1 DRAIN AND FLUSH HOT WATER HTR.
 0814J02 1 CHECK OPERATION-HOT WATER HTR.
 0814J03 1 REPLACE HOT WATER HEATER
 0814K00 1 HOT WATER HEATER ELEC. 2000 GAL.
 0814K01 1 DRAIN AND FLUSH HOT WATER HTR.
 0814K02 1 CHECK OPERATION-HOT WATER HTR.
 0814K03 1 REPLACE HOT WATER HEATER
 0820000 RAIN WATER
 0821000 FIXTURES, RAIN WATER
 0821100 1 DRAIN, ROOF SCUPPER, AREA
 0821101 1 GENERAL MAINTENANCE AND REPAIR
 0821103 1 REPLACE DRAIN
 0822000 DRAINAGE, RAIN WATER
 0822100 4 DISTRIBUTION, GUTTERS, PIPE
 0822101 4 GENERAL MAINTENANCE & REPAIR

Cases No : Unit of Measure : Description

0822102 4 REPLACE PIPE OR GUTTER
 0830000 SPECIAL PLUMBING SYSTEM
 0831000 COMPRESSED AIR
 0831100 1 SIMPLE COMPRESSED AIR
 0831110 1 1 H.P.
 0831111 1 CHECK AND ADJUST
 0831112 1 REPAIR COMPRESSOR
 0831113 1 REPLACE COMPRESSOR
 0831200 1 HOSE, COMPRESSED AIR
 0831210 1 RUBBER
 0831211 1 REPLACE RUBBER HOSE
 0831300 4 PIPE AND FITTINGS FOR COMPRESSED AIR
 0831310 4 METAL PIPE
 0831311 4 GENERAL MAINTENANCE
 0831312 4 REPLACE PIPE AND FITTINGS 10 FT.
 0831313 4 REPLACE PIPE AND FITTINGS
 0832000 INDUSTRIAL GASES
 0832100 1 SIMPLE GAS COMPRESSOR
 0832110 1 1 H.P.
 0832111 1 CHECK AND ADJUST
 0832112 1 REPAIR COMPRESSOR
 0832113 1 REPLACE COMPRESSOR
 0832200 1 HOSE, INDUSTRIAL GAS
 0832210 1 RUBBER
 0832211 1 REPLACE RUBBER HOSE
 0832300 4 PIPE AND FITTINGS FOR INDUST. GAS
 0832310 4 METAL PIPE
 0832311 4 GENERAL MAINTENANCE
 0832312 4 REPLACE PIPE AND FITTINGS 10 FT.
 0832313 4 REPLACE PIPE AND FITTINGS
 0840000 SPECIAL PLUMBING FIXTURE
 0841000 KITCHEN PLUMBING FIXTURE
 0841100 1 DISHWASHER
 0841101 1 GENERAL MAINTENANCE AND REPAIR.
 0841102 1 REPLACE UNIT.
 0841200 1 WASTE DISPOSAL, RESIDENTIAL
 0841201 1 UNSTOP
 0841202 1 REPLACE UNIT.
 0900000 HEATING, VENTILATION AND AIRCONDITIONING
 0910000 NATURAL GAS SYSTEMS
 0911000 EQUIPMENT/METERS/REGULATORS, NAT. GAS
 0911100 1 GAS METER
 0911101 1 REPLACE/REPLACE METER
 0912000 PIPING SYSTEMS, NATURAL GAS SYS.
 0920000 FUEL OIL SYSTEMS
 0921000 STORAGE SYSTEMS, FUEL OIL SYS.
 0922000 TRANSFER SYSTEMS, FUEL OIL SYS.
 0923000 DISTRIBUTION SYSTEMS, FUEL OIL SYS.
 0930000 LPG SYSTEMS
 0931000 STORAGE SYSTEMS, LPG SYS.

Cases No : Unit of Measure : Description

0932000 TRANSFER SYSTEMS, LPG SYS.
 0933000 DISTRIBUTION SYSTEMS, LPG SYS.
 0940000 STEAM (SUPPLIED FROM CENTRAL)
 0941000 PRESSURE REDUCING REG. SYS., STEAM SYS.
 0941300 1 STEAM REGULATION VALVE - 2"
 0941301 1 REPLACE STEAM REGUL. VALVE-2"
 0941500 1 COND.METER, <300#/HR
 0941501 1 M/R, REPAIR METER
 0941502 1 PM, PREVENTATIVE MAINTENANCE CLEANING
 0941503 1 REPLACE/ REPLACE METER
 0942000 DISTRIBUTION SYSTEMS, STEAM SYS.
 0942100 1 RADIATOR VALVE 1"
 0942101 1 REPLACE RADIATOR VALVE - 1"
 0950000 CHILLED WATER (SUPPLIED FROM CENTRAL)
 0960000 SOLAR SYSTEMS
 0961000 EQUIPMENT, SOLAR SYSTEMS
 0962000 PIPING, SOLAR SYSTEMS
 0970000 OTHER GENERATION SYSTEMS
 0980000 HEATING GENERATION SYSTEMS
 0981000 EQUIPMENT, HEATING GENERATION
 0981100 1 BOILER (GAS)
 0981110 1 250 BTU
 0981111 1 REPAIR BOILER
 0981112 1 PREVENTIVE MAINTENANCE - ANNUAL INSP.
 0981113 1 PREVENTIVE MAINTENANCE - EXTERNAL INSP.
 0981114 1 PREVENTIVE MAINT. - CLEAN FIRE BOX
 0981115 1 PREVENTIVE MAINT. - WEEKLY TOUR
 0981116 1 REPLACE BOILER
 0981120 1 2000 BTU
 0981121 1 REPAIR BOILER
 0981122 1 PREVENTIVE MAINT. - ANNUAL INSPECTION
 0981123 1 PREVENTIVE MAINT. - EXTERNAL INSP.
 0981124 1 PREVENTIVE MAINT. - CLEAN FIRE BOX
 0981125 1 PREVENTIVE MAINT. CLEAN TUBES
 0981126 1 PREVENTIVE MAINT. - WEEKLY TOUR
 0981127 1 REPLACE BOILER
 0981130 1 10000 BTU
 0981131 1 REPAIR BOILER
 0981132 1 PREVENTIVE MAINT. - ANNUAL INSP.
 0981133 1 PREVENTIVE MAINT. - EXTERNAL INSP.
 0981134 1 PREVENTIVE MAINT. - CLEAN FIRE BOX
 0981135 1 PREVENTIVE MAINT. - CLEAN TUBES
 0981136 1 PREVENTIVE MAINT. - WEEKLY TOUR
 0981137 1 REPLACE BOILER
 0981200 1 BOILER (COAL)
 0981210 1 40000 BTU
 0981211 1 REPAIR BOILER
 0981212 1 PREVENTIVE MAINT. - ANNUAL
 0981213 1 PREVENTIVE MAINT. - EXTERNAL INSP.
 0981214 1 PREVENTIVE MAINT. - WEEKLY TOUR
 0981215 1 REPLACE BOILER
 0981220 1 100000 BTU

Cases No : Unit of Measure : Description

0981221	1	REPAIR BOILER
0981222	1	PREVENTIVE MAINT. - ANNUAL
0981223	1	PREVENTIVE MAINT. - EXTERNAL INSP.
0981224	1	PREVENTIVE MAINT. - WEEKLY TOUR
0981225	1	REPLACE BOILER
0981300	1	BOILER (OIL)
0981310	1	250 BTU
0981311	1	REPAIR BOILER
0981312	1	PREVENTIVE MAINT. - ANNUAL INSP.
0981313	1	PREVENTIVE MAINT. - EXTERNAL INSP.
0981314	1	PREVENTIVE MAINT. - WEEKLY TOUR
0981315	1	PREVENTIVE MAINT. - CLEAN BURNER
0981316	1	REPLACE BOILER
0981320	1	2000 BTU
0981321	1	REPAIR BOILER
0981322	1	PREVENTIVE MAINT. - ANNUAL INSP.
0981323	1	PREVENTIVE MAINT. - EXTERNAL INSP.
0981324	1	PREVENTIVE MAINT. - WEEKLY TOUR
0981325	1	PREVENTIVE MAINT. - CLEAN BURNER
0981326	1	REPLACE BOILER
0981330	1	10000 BTU
0981331	1	REPAIR BOILER
0981332	1	PREVENTIVE MAINT. - ANNUAL INSP.
0981333	1	PREVENTIVE MAINT. - EXTERNAL INSP.
0981334	0	PREVENTIVE MAINT. - WEEKLY TOUR
0981335	1	PREVENTIVE MAINT. - CLEAN BURNER
0981336	1	REPLACE BOILER
0981400	1	BOILER DUAL FIRED
0981410	1	2000 BTU
0981411	1	REPAIR BOILER
0981412	1	PREVENTIVE MAINT. - ANNUAL
0981413	1	PREVENTIVE MAINT. - EXTERNAL INSP.
0981414	1	PREVENTIVE MAINT. - WEEKLY TOUR
0981415	1	REPLACE BOILER
0981420	1	20000 BTU
0981421	1	REPAIR BOILER
0981422	1	PREVENTIVE MAINT. - ANNUAL INSP.
0981423	1	PREVENTIVE MAINT. - EXTERNAL INSP.
0981424	1	PREVENTIVE MAINT. - WEEKLY TOUR
0981425	1	REPLACE BOILER
0981500	1	BOILER PNEUMATIC COAL SPREADER
0981510	1	BOILER PNEUMATIC COAL SPREADER
0981511	1	REPAIR SPREADER
0981512	1	PREVENTIVE MAINT. - DAILY TOUR
0981513	1	PREVENTIVE MAINT. - WEEKLY
0981514	1	PREVENTIVE MAINT. - MONTHLY
0981515	1	PREVENTIVE MAINT. - ANNUAL
0981600	1	ASH HANDLING SYSTEM
0981610	1	ASH HANDLING SYSTEM
0981611	1	REPAIR SYSTEM
0981612	1	PREVENTIVE MAINT. - DAILY
0981613	1	PREVENTIVE MAINT. - MONTHLY
0981614	1	PREVENTIVE MAINT. - ANNUAL
0981615	1	REPLACE ASH HANDLING SYSTEM
0981700	1	FUEL OIL EQUIPMENT
0981710	1	FUEL OIL EQUIPMENT
0981711	1	REPAIR FUEL OIL EQUIPMENT

Cases No : Unit of Measure : Description

0981712	1	PREVENTIVE MAINTENANCE
0981713	1	REPLACE FUEL OIL EQUIPMENT
0981800	1	CHEMICAL FEED SYSTEM
0981810	1	CHEMICAL FEED SYSTEM
0981811	1	REPAIR CHEMICAL FEED
0981812	1	PREVENTIVE MAINTENANCE
0981813	1	REPLACE CHEMICAL FEEDER
0981900	1	FEED WATER SUPPLY
0981910	1	FEEDWATER SUPPLY
0981911	1	REPAIR FEED WATER SUPPLY PUMP
0981912	1	PREVENTIVE MAINTENANCE
0981913	1	REPLACE FEEDWATER PUMP
0981A00	1	DEAERATOR
0981A10	1	DEAERATOR
0981A11	1	REPAIR DEAERATOR
0981A12	1	PREVENTIVE MAINTENANCE
0981A13	1	REPLACE DEAERATOR
0981B00	1	BLOWOFF SYSTEM
0981B10	1	BLOWOFF SYSTEM
0981B11	1	REPAIR BOILER BLOWOFF SYSTEM
0981B12	1	REPLACE BOILER BLOWOFF SYSTEM
0981C00	1	HOUSE FURNACE (GAS)
0981C10	1	25 KBTU
0981C11	1	REPAIR FURNACE
0981C12	1	PREVENTIVE MAINTENANCE
0981C13	1	REPLACE FURNACE
0981C20	1	100 KBTU
0981C21	1	REPAIR FURNACE
0981C22	1	PREVENTIVE MAINTENANCE
0981C23	1	REPLACE FURNACE
0981C30	1	200 KBTU
0981C31	1	REPAIR FURNACE
0981C32	1	PREVENTIVE MAINTENANCE
0981C33	1	REPLACE FURNACE
0981D00	1	HOUSE FURNACE (OIL)
0981D10	1	25 KBTU
0981D11	1	REPAIR FURNACE
0981D12	1	PREVENTIVE MAINTENANCE
0981D13	1	REPLACE FURNACE
0981D20	1	100 KBTU
0981D21	1	REPAIR FURNACE
0981D22	1	PREVENTIVE MAINTENANCE
0981D23	1	REPLACE FURNACE
0981D30	1	200 KBTU
0981D31	1	REPAIR FURNACE
0981D32	1	PREVENTIVE MAINTENANCE
0981D33	1	REPLACE FURNACE
0981E00	1	HOUSE FURNACE (ELECTRIC)
0981E10	1	25 KBTU
0981E11	1	REPAIR FURNACE
0981E12	1	PREVENTIVE MAINTENANCE
0981E13	1	REPLACE FURNACE
0981E20	1	100 KBTU
0981E21	1	REPAIR FURNACE
0981E22	1	PREVENTIVE MAINTENANCE
0981E23	1	REPLACE FURNACE
0981E30	1	200 KBTU

Cases No : Unit of Measure : Description

0981E31 1 REPAIR FURNACE
0981E32 1 PREVENTIVE MAINTENANCE
0981E33 1 REPLACE FURNACE
0981F00 1 RADIATOR, CAST IRON 10' SEC.
0981F01 1 REPLACE RADIATOR, CAST IRON
0981G00 1 RADIATOR, BASEBOARD 10' SEC.
0981G01 1 REPLACE RADIATOR, BASEBOARD
0981H00 1 RADIATOR, FINNED WALL 10' SEC.
0981H01 1 REPLACE WALL RADIATOR, FINNED
0981I00 1 EXPANSION TANK
0981I01 1 REFILL EXPANSION TANK
0981I02 1 REPLACE EXPANSION TANK
0981J00 1 STEAM CONVERTOR, <300,000
0981J10 1 STEAM CONVERTOR, <300,000
0981J11 1 REPAIR STEAM CONVERTOR
0981J12 1 INSPECT FOR LEAKS
0981J13 1 REPLACE STEAM CONVERTOR
0981K00 1 FLASH TANK
0981K10 1 FLASH TANK
0981K11 1 REPAIR FLASH TANK
0981K12 1 PREVENTIVE MAINTENANCE
0981K13 1 REPLACE FLASH TANK
0982000 FIXTURES, HEATING GENERATION
0983000 INTERCONNECTING PIPING SYSTEM, HEAT GEN.
0984000 DISTRIBUTION PIPING SYSTEM, HEAT GEN.
0984100 4 PIPE/FITTINGS
0984110 4 PIPE/FITTINGS, ST.&CP
0984111 4 M/R, REPAIR HOT WATER PIPE
0984112 4 REPLACE/REPLACE HOT WATER PIPE, 12' SEC
0984120 4 PIPE/FITTINGS, COPPER
0984121 4 M/R, REPAIR SOLDER JOINT
0984122 4 REPLACE/REPLACE HOT WATER PIPE, 12' SEC
0984200 1 GATE VALVE
0984210 1 GATE VALVE 3/8"-1 1/2"
0984211 1 M/R, REPACK GATE VALVE GLAND
0984212 1 REPLACE/REPLACE GATE VALVE
0984220 1 GATE VALVE, 2"-3"
0984221 1 M/R, REPACK GATE VALVE GLAND
0984222 1 REPLACE/REPLACE GATE VALVE
0984230 1 DRAIN VALVE
0984281 1 M/R, REPACK DRAIN VALVE GLAND
0984282 1 M/R, REPLACE VALVE STEM ASSEMBLY
0984283 1 REPLACE/REPLACE DRAIN VALVE
0984300 1 PIPE INSULATION
0984370 1 STEAM TRAP F&T<1"
0984371 1 M/R, REPAIR STEAM TRAP
0984372 1 PREV. MAIN. ON STEAM TRAP
0984373 1 REPLACE/REPLACE STEAM TRAP
09843A0 4 AIR SEPARATOR
09843A1 4 REPAIR BROKEN INSULATION
09843A2 4 REPLACE INSULATION
0984400 1 CIRCULATOR PUMP
0984410 1 CIRCULATOR PUMP <1HP
0984411 1 M/R, REPAIR CIRCULATOR PUMP
0984412 1 PM, PREV. MAIN. ON CIRCULATOR PUMP
0984413 1 REPLACE/REPLACE CIRCULATOR PUMP
0984420 1 CIRCULATION PUMP 5 HP

Cases No : Unit of Measure : Description

0984421 1 REPAIR CIRCULATION PUMP - 5HP
0984422 1 PREVENTIVE MAINTENANCE - PUMP
0984423 1 REPLACE CIRCULATION PUMP 5 HP
0984460 1 COND. RCVR., 10-15 GAL.
0984461 1 M/R, REPAIR CONDENSATE RECEIVER
0984462 1 M/R, REPAIR CONDENSATE RECEIVER, MOTOR
0984463 1 P/M, PREV. MAINT. ON CONDENSATE RECEIVER
0984464 1 REPLACE/REPLACE CONDENSATE RECEIVER
0985000 HVAC VALVES, HEATING GENERATION
0990000 COOLING GENERATION SYSTEMS
0991000 EQUIPMENT, COOLING GENERATION
0991100 1 A/C DX PACKAGED
0991110 1 5 TONS
0991111 1 REPAIR AIR CONDITIONER
0991112 1 PREVENTIVE MAINTENANCE
0991113 1 REPLACE AIR CONDITIONER
0991120 1 20 TONS
0991121 1 REPAIR AIR CONDITIONER
0991122 1 PREVENTIVE MAINTENANCE
0991123 1 REPLACE AIR CONDITIONER
0991130 1 50 TONS
0991131 1 REPAIR AIR CONDITIONER
0991132 1 REPLACE AIR CONDITIONER
0991133 1 SUPPLY AIR FAN BEARINGS
0991200 1 A/C WINDOW
0991210 1 1 TON
0991211 1 REPAIR AIR CONDITIONER
0991212 1 PREVENTIVE MAINTENANCE
0991213 1 REPLACE AIR CONDITIONER
0991220 1 2 TONS
0991221 1 REPAIR AIR CONDITIONER
0991222 1 PREVENTIVE MAINTENANCE
0991223 1 REPLACE AIR CONDITIONER
0991300 1 A/C PAD MOUNTED
0991310 1 AIR CONDITIONER PAD MOUNT. 5 TON
0991311 1 REPAIR AIR COND. PAD MNT. 5 TON
0991312 1 PREVENTIVE MAINTENANCE A/C 5 TON
0991313 1 REPLACE AIR CONDNER. PAD 5 TON
0991320 1 AIR CONDITIONER PAD MOUNT. 20 TON
0991321 1 REPAIR AIR COND. PAD MNT. 20 T
0991322 1 PREVENTIVE MAINTENANCE A/C 20T
0991323 1 REPLACE AIR CONDNER. PAD 20 TON
0991400 1 CHILLERS ACH RECIP
0991410 1 20 TONS
0991411 1 REPAIR HERMETIC CHILLER
0991412 1 PREVENTIVE MAINTENANCE
0991413 1 REPLACE CHILLER
0991420 1 50 TONS
0991421 1 REPAIR HERMETIC CHILLER
0991422 1 PREVENTIVE MAINTENANCE
0991423 1 REPLACE CHILLER
0991430 1 100 TONS
0991431 1 REPAIR HERMETIC CHILLER
0991432 1 PREVENTIVE MAINTENANCE
0991433 1 REPLACE CHILLER
0991500 1 CHILLERS WCH RECIP.

Cases No : Unit of Measure : Description

0991510	1	20 TONS
0991511	1	REPAIR HERMETIC CHILLER
0991512	1	PREVENTIVE MAINTENANCE
0991513	1	REPLACE CHILLER
0991520	1	50 TONS
0991521	1	REPAIR HERMETIC CHILLER
0991522	1	PREVENTIVE MAINTENANCE
0991523	1	REPLACE CHILLER
0991530	1	100 TONS
0991531	1	REPAIR HERMETIC CHILLER
0991532	1	PREVENTIVE MAINTENANCE
0991533	1	REPLACE CHILLER
0991600	1	CHILLERS HERMETIC CENT.
0991610	1	100 TONS
0991611	1	REPAIR CHILLER
0991612	1	PREVENTIVE MAINTENANCE
0991613	1	REPLACE CHILLER
0991620	1	300 TONS
0991621	1	REPAIR CHILLER
0991622	1	PREVENTIVE MAINTENANCE
0991623	1	REPLACE CHILLER
0991630	1	900 TONS
0991631	1	REPAIR CHILLER
0991632	1	PREVENTIVE MAINTENANCE
0991633	1	REPLACE CHILLER
0991700	1	CHILLERS OPEN CENTRIFUGAL
0991710	1	300 TONS
0991711	1	REPAIR CHILLER
0991712	1	PREVENTIVE MAINTENANCE
0991713	1	REPLACE CHILLER
0991720	1	900 TONS
0991721	1	REPAIR CHILLER
0991722	1	PREVENTIVE MAINTENANCE
0991723	1	REPLACE CHILLER
0991800	1	CHILLERS DOUBLE BUN HERMETIC
0991810	1	100 TONS
0991811	1	REPAIR CHILLER
0991812	1	PREVENTIVE MAINTENANCE
0991813	1	REPLACE CHILLER
0991820	1	300 TONS
0991821	1	REPAIR CHILLER
0991822	1	PREVENTIVE MAINTENANCE
0991823	1	REPLACE CHILLER
0991830	1	900 TONS
0991831	1	REPAIR CHILLER
0991832	1	PREVENTIVE MAINTENANCE
0991833	1	REPLACE CHILLER
0991900	1	CHILLERS ONE STAGE ABSORBER
0991910	1	100 TONS
0991911	1	REPAIR CHILLER
0991912	1	PREVENTIVE MAINTENANCE
0991913	1	REPLACE CHILLER
0991920	1	300 TONS
0991921	1	REPAIR CHILLER
0991922	1	PREVENTIVE MAINTENANCE
0991923	1	REPLACE CHILLER
0991930	1	900 TONS

Cases No : Unit of Measure : Description

0991931	1	REPAIR CHILLER
0991932	1	PREVENTIVE MAINTENANCE
0991933	1	REPLACE CHILLER
0991A00	1	CHILLERS TWO STAGE ABSORBER
0991A10	1	300 TONS
0991A11	1	REPAIR CHILLER
0991A12	1	PREVENTIVE MAINTENANCE
0991A13	1	REPLACE CHILLER
0991A20	1	900 TONS
0991A21	1	REPAIR CHILLER
0991A22	1	PREVENTIVE MAINTENANCE
0991A23	1	REPLACE CHILLER
0991B00	1	HEAT REJECTION SYSTEMS AIRCOOLED CONDENSER
0991B10	1	5 TONS
0991B11	1	REPAIR CONDENSER
0991B12	1	PREVENTIVE MAINTENANCE
0991B13	1	REPLACE CONDENSER
0991B20	1	20 TONS
0991B21	1	REPAIR CONDENSER
0991B22	1	PREVENTIVE MAINTENANCE
0991B23	1	REPLACE CONDENSER
0991B30	1	50 TONS
0991B31	1	REPAIR CONDENSER
0991B32	1	PREVENTIVE MAINTENANCE
0991B33	1	REPLACE CONDENSER
0991C00	1	HEAT REJECTION SYSTEMS COOLING TOWER
0991C10	1	50 TONS
0991C11	1	REPAIR COOLING TOWER
0991C12	1	PREVENTIVE MAINTENANCE
0991C13	1	REPLACE COOLING TOWER
0991C20	1	100 TONS
0991C21	1	REPAIR COOLING TOWER
0991C22	1	PREVENTIVE MAINTENANCE
0991C23	1	REPLACE COOLING TOWER
0991C30	1	300 TONS
0991C31	1	REPAIR COOLING TOWER
0991C32	1	PREVENTIVE MAINTENANCE
0991C33	1	REPLACE COOLING TOWER
0991C40	1	900 TONS
0991C41	1	REPAIR COOLING TOWER
0991C42	1	PREVENTIVE MAINTENANCE
0991C43	1	REPLACE COOLING TOWER
0991D00	1	HEAT REJECTION SYSTEMS EVAPORATIVE COND
0991D10	1	20 TONS
0991D11	1	REPAIR EVAPORATIVE CONDENSER
0991D12	1	PREVENTIVE MAINTENANCE
0991D13	1	REPLACE EVAPORATIVE CONDENSER
0991D20	1	100 TONS
0991D21	1	REPAIR EVAPORATIVE CONDENSER
0991D22	1	PREVENTIVE MAINTENANCE
0991D23	1	REPLACE EVAPORATIVE CONDENSER
0991D30	1	300 TONS
0991D31	1	REPAIR EVAPORATIVE CONDENSER
0991D32	1	PREVENTIVE MAINTENANCE
0991D33	1	REPLACE EVAPORATIVE CONDENSER
0991E00	1	EXPANSION TANK
0991E01	1	M/R, REFILL EXPANSION TANK

Cases No : Unit of Measure : Description

0991E02 1 REPLACE/ REPLACE EXPANSION TANK
0992000 FIXTURES, COOLING GENERATION
0993000 INTERCONNECTING PIPING SYSTEMS, COOL GEN
0994000 DISTRIBUTION PIPING SYSTEMS COOL GEN.
0994100 4 PIPE/FITTINGS
0994110 4 PIPE/FITTINGS, ST.&CT.
0994111 4 M/R, REPAIR CHILLED WATER PIPE
0994112 4 REPLACE/ REPLACE CHILLED WATER PIPE, 12'S
0994120 4 PIPE/FITTINGS, COPPER
0994121 4 M/R, REPAIR SOLDER JOINT
0994122 4 REPLACE/ REPLACE CHILLED WATER PIPE, 12'S
0994200 1 GATE VALVE
0994210 1 GATE VALVE, 3/8"-1 1/2"
0994211 1 M/R, REPACK GATE VALVE GLAND
0994212 1 REPLACE/ REPLACE GATE VALVE, PARTIAL
0994220 1 GATE VALVE, 2"-3"
0994221 1 M/R, REPACK GATE VALVE GLAND
0994222 1 REPLACE/ REPLACE GATE VALVE, PARTIAL
0994280 1 DRAIN VALVE
0994281 1 M/R, REPACK DRAIN VALVE GLAND
0994282 1 M/R, REPACK VALVE STEM ASSEMBLY
0994283 1 REPLACE/ REPLACE VALVE
0994300 4 COLLING GENERATION
0994340 4 PIPE INSULATION
0994341 4 M/R REPAIR BROKEN PIPE INSULATION
0994342 4 REPLACE REPLACE PIPE INSULATION
0994400 1 CIRCULATION PUMP
0994410 1 CIRC. PUMP 1/12-1/2 M.P.
0994411 1 REPAIR CIRC. PUMP
0994412 1 PREVENT. MAINT. ON PUMP
0994413 1 REPLACE CIRCULATION PUMP
0994420 1 CIRCULATION PUMP 5 H.P.
0994421 1 REPAIR CIRCULATION PUMP 5 HP.
0994422 1 PREVENTIVE MAINT.CIRC.PUMP 5HP
0994423 1 REPLACE CIRC. PUMP 5 HP.
0994424 1 REPLACE CIRC. PUMP 5 HP.
09A0000 HEATING AND COOLING GENERATION SYSTEMS
09A1000 EQUIPMENT, H & C
09A1100 1 MULTI-ZONE
09A1110 1 6500 CFM
09A1111 1 REPAIR MULTI-ZONE UNIT
09A1112 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1113 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1114 1 REPLACE MULTI-ZONE UNIT
09A1120 1 10000 CFM
09A1121 1 REPAIR MULTI-ZONE UNIT
09A1122 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1123 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1124 1 REPLACE MULTI-ZONE UNIT
09A1130 1 25000 CFM
09A1131 1 REPAIR MULTI-ZONE UNIT
09A1132 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1133 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1134 1 REPLACE MULTI-ZONE UNIT
09A1140 1 50000 CFM
09A1141 1 REPAIR MULTI-ZONE UNIT
09A1142 1 PREVENTIVE MAINTENANCE - ANNUAL

Cases No : Unit of Measure : Description

09A1143 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1144 1 REPLACE MULTI-ZONE UNIT
09A1200 1 DUAL DUCT
09A1210 1 6500 CFM
09A1211 1 REPAIR DUAL DUCT UNIT
09A1212 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1213 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1214 1 REPLACE DUAL DUCT UNIT
09A1220 1 10000 CFM
09A1221 1 REPAIR DUAL DUCT UNIT
09A1222 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1223 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1224 1 REPLACE DUAL DUCT UNIT
09A1230 1 25000 CFM
09A1231 1 REPAIR DUAL DUCT UNIT
09A1232 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1233 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1234 1 REPLACE DUAL DUCT UNIT
09A1240 1 50000 CFM
09A1241 1 REPAIR DUAL DUCT UNIT
09A1242 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1243 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1244 1 REPLACE DUAL DUCT UNIT
09A1300 1 THREE DECK MULTI-ZONE
09A1310 1 6500 CFM
09A1311 1 REPAIR MULTI-ZONE UNIT
09A1312 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1313 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1314 1 REPLACE MULTI-ZONE UNIT
09A1320 1 10000 CFM
09A1321 1 REPAIR MULTI-ZONE UNIT
09A1322 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1323 1 PREVENTIVE MAINTENANCE - REPLACE FILTER
09A1324 1 REPLACE MULTI-ZONE UNIT
09A1330 1 25000 CFM
09A1331 1 REPAIR MULTI-ZONE UNIT
09A1332 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1333 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1334 1 REPLACE MULTI-ZONE UNIT
09A1340 1 50000 CFM
09A1341 1 REPAIR MULTI-ZONE UNIT
09A1342 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1343 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1344 1 REPLACE MULTI-ZONE UNIT
09A1400 1 DUAL DUCT VARIABLE VOLUME
09A1410 1 6500 CFM
09A1411 1 REPAIR DUAL DUCT VARIABLE VOLUME SYSTEM
09A1412 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1413 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1414 1 REPLACE DUAL DUCT VARIABLE VOLUME UNIT
09A1420 1 10000 CFM
09A1421 1 REPAIR DUAL DUCT VARIABLE VOLUME UNIT
09A1422 1 PREVENTIVE MAINTENANCE - ANNUAL
09A1423 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1424 1 REPLACE DUAL DUCT VARIABLE VOLUME UNIT
09A1430 1 25000 CFM
09A1431 1 REPAIR DUAL DUCT VARIABLE VOLUME UNIT

Case No	Unit of Measure	Description
1	1	1
2	2	2
3	3	3
4	4	4
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98	98	98
99	99	99
100	100	100

09A1432	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1433	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1434	1	REPLACE DUAL DUCT VARIABLE VOLUME UNIT
09A1440	1	5000 CFM
09A1441	1	REPAIR DUAL DUCT VARIABLE VOLUME UNIT
09A1442	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1443	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1444	1	REPLACE DUAL DUCT VARIABLE VOLUME UNIT
09A1500	1	VARIABLE VOLUME
09A1510	1	6500 CFM
09A1511	1	REPAIR VARIABLE VOLUME UNIT
09A1512	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1513	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1514	1	REPLACE VARIABLE VOLUME UNIT
09A1520	1	10000 CFM
09A1521	1	REPAIR VARIABLE VOLUME UNIT
09A1522	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1523	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1524	1	REPLACE VARIABLE VOLUME UNIT
09A1530	1	25000 CFM
09A1531	1	REPAIR VARIABLE VOLUME UNIT
09A1532	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1533	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1534	1	REPLACE VARIABLE VOLUME UNIT
09A1540	1	50000 CFM
09A1541	1	REPAIR VARIABLE VOLUME UNIT
09A1542	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1543	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1544	1	REPLACE VARIABLE VOLUME UNIT
09A1600	1	TERM REHEAT
09A1610	1	6500 CFM
09A1611	1	REPAIR TERMINAL REHEAT UNIT
09A1612	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1613	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1614	1	REPLACE TERMINAL REHEAT UNIT
09A1620	1	10000 CFM
09A1621	1	REPAIR TERMINAL REHEAT UNIT
09A1622	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1623	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1624	1	REPLACE TERMINAL REHEAT UNIT
09A1630	1	25000 CFM
09A1631	1	REPAIR TERMINAL REHEAT UNIT
09A1632	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1633	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1634	1	REPLACE TERMINAL REHEAT UNIT
09A1640	1	50000 CFM
09A1641	1	REPAIR TERMINAL REHEAT UNIT
09A1642	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1643	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1644	1	REPLACE TERMINAL REHEAT UNIT
09A1700	1	TWO-PIPE INDUCTION
09A1710	1	6500 CFM
09A1711	1	REPAIR 2 PIPE INDUCTION UNIT
09A1712	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1713	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1714	1	REPLACE 2 PIPE INDUCTION UNIT
09A1720	1	10000 CFM

Cases No : Unit of Measure : Description

09A1721	1	REPAIR 2 PIPE INDUCTION UNIT
09A1722	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1723	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1724	1	REPLACE 2 PIPE INDUCTION UNIT
09A1730	1	2500 CFM
09A1731	1	REPAIR 2 PIPE INDUCTION UNIT
09A1732	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1733	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1734	1	REPLACE 2 PIPE INDUCTION UNIT
09A1740	1	5000 CFM
09A1741	1	REPAIR 2 PIPE INDUCTION UNIT
09A1742	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1743	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1744	1	REPLACE 2 PIPE INDUCTION UNIT
09A1800	1	FOUR-PIPE INDUCTION
09A1810	1	6500 CFM
09A1811	1	REPAIR 4 PIPE INDUCTION UNIT
09A1812	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1813	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1814	1	REPLACE 4 PIPE INDUCTION UNIT
09A1820	1	10000 CFM
09A1821	1	REPAIR 4 PIPE INDUCTION UNIT
09A1822	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1823	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1824	1	REPLACE 4 PIPE INDUCTION UNIT
09A1830	1	25000 CFM
09A1831	1	REPAIR 4 PIPE INDUCTION UNIT
09A1832	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1833	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1834	1	REPLACE 4 PIPE INDUCTION UNIT
09A1840	1	50000 CFM
09A1841	1	REPAIR 4 PIPE INDUCTION UNIT
09A1842	1	PREVENTIVE MAINTENANCE - ANNUAL
09A1843	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1844	1	REPLACE 4 PIPE INDUCTION UNIT
09A1900	1	TWO-PIPE FAN COIL
09A1910	1	200 CFM
09A1911	1	REPAIR FAN COIL UNIT
09A1912	1	PREVENTIVE MAINTENANCE - CLEAN COILS
09A1913	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09 1914	1	REPLACE FAN COIL UNIT
09A1920	1	400 CFM
09A1921	1	REPAIR FAN COIL UNIT
09A1922	1	PREVENTIVE MAINTENANCE - CLEAN COILS
09A1923	1	PREVENTIVE MAINTENANCE - REPLACE FILTERS
09A1924	1	REPLACE FAN COIL UNIT
09A1930	1	600 CFM
09A1931	1	REPAIR FAN COIL UNIT
09A1932	1	PREVENTIVE MAINTENANCE - CLEAN COILS
09A1933	1	PREVENTIVE MAINTENANCE - REPLACE FILTER
09A1934	1	REPLACE FAN COIL UNIT
09A1940	1	1200 CFM
09A1941	1	REPAIR FAN COIL UNIT
09A1942	1	PREVENTIVE MAINTENANCE - CLEAN COILS
09A1943	1	PREVENTIVE MAINTENANCE - REPLACE FILTER
09A1944	1	REPLACE FAN COIL UNIT
09A1A00	1	FOUR-PIPE FAN-COIL

Cases No : Unit of Measure : Description

09A1A10 1 200 CFM
 09A1A11 1 REPAIR FAN COIL UNIT
 09A1A12 1 PREVENTIVE MAINTENANCE - CLEAN COILS
 09A1A13 1 PREVENTIVE MAINTENANCE - REPLACE FILTER
 09A1A14 1 REPLACE FAN COIL UNIT
 09A1A20 1 400 CFM
 09A1A21 1 REPAIR FAN COIL UNIT
 09A1A22 1 PREVENTIVE MAINTENANCE - CLEAN COILS
 09A1A23 1 PREVENTIVE MAINTENANCE - REPLACE FILTER
 09A1A24 1 REPLACE FAN COIL UNIT
 09A1A30 1 600 CFM
 09A1A31 1 REPAIR FAN COIL UNIT
 09A1A32 1 PREVENTIVE MAINTENANCE - CLEAN COILS
 09A1A33 1 PREVENTIVE MAINTENANCE - REPLACE FILTER
 09A1A34 1 REPLACE FAN COIL UNIT
 09A1A40 1 1200 CFM
 09A1A41 1 REPAIR FAN COIL UNIT
 09A1A42 1 PREVENTIVE MAINTENANCE - CLEAN COILS
 09A1A43 1 PREVENTIVE MAINTENANCE - REPLACE FILTER
 09A1A44 1 REPLACE FAN COIL UNIT
 09A1B00 1 UNIT-VENT
 09A1B10 1 400 CFM
 09A1B11 1 REPAIR UNIT VENT
 09A1B12 1 PREVENTIVE MAINTENANCE
 09A1B13 1 REPLACE UNIT VENT
 09A1B20 1 1200 CFM
 09A1B21 1 REPAIR UNIT VENT
 09A1B22 1 PREVENTIVE MAINTENANCE
 09A1B23 1 REPLACE UNIT VENT
 09A1C00 1 SINGLE-ZONE DRAW THRU
 09A1C10 1 6500 CFM
 09A1C11 1 REPAIR SINGLE ZONE DRAW-THRU
 09A1C12 1 PREVENTIVE MAINTENANCE - ANNUAL
 09A1C13 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
 09A1C14 1 REPLACE SINGLE ZONE DRAW-THRU
 09A1C20 1 10000 CFM
 09A1C21 1 REPAIR SINGLE ZONE DRAW-THRU
 09A1C22 1 PREVENTIVE MAINTENANCE - ANNUAL
 09A1C23 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
 09A1C24 1 REPLACE SINGLE ZONE DRAW-THRU
 09A1C30 1 25000 CFM
 09A1C31 1 REPAIR SINGLE ZONE DRAW-THRU
 09A1C32 1 PREVENTIVE MAINTENANCE - ANNUAL
 09A1C33 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
 09A1C34 1 REPLACE SINGLE ZONE DRAW-THRU
 09A1C40 1 50000 CFM
 09A1C41 1 REPAIR SINGLE ZONE DRAW-THRU
 09A1C42 1 PREVENTIVE MAINTENANCE - ANNUAL
 09A1C43 1 PREVENTIVE MAINTENANCE - REPLACE FILTERS
 09A1C44 1 REPLACE SINGLE ZONE DRAW-THRU
 09A1D00 1 UNIT HEATER
 09A1D10 1 400 CFM
 09A1D11 1 REPAIR UNIT HEATER
 09A1D12 1 PREVENTIVE MAINTENANCE
 09A1D13 1 REPLACE UNIT HEATER
 09A1D20 1 1200 CFM
 09A1D21 1 REPAIR UNIT HEATER

Cases No : Unit of Measure : Description

09A1D22 1 PREVENTIVE MAINTENANCE
 09A1D23 1 REPLACE UNIT HEATER
 09A1E00 1 HEAT PUMP
 09A1E10 1 HEAT PUMP 5 TONS
 09A1E11 1 REPAIR HEAT PUMP
 09A1E12 1 PREVENTIVE MAINTENANCE
 09A1E13 1 REPLACE HEAT PUMP
 09A1E20 1 HEAT PUMP 10 TONS
 09A1E21 1 REPAIR HEAT PUMP
 09A1E22 1 PREVENTIVE MAINTENANCE
 09A1E23 1 REPLACE HEAT PUMP
 09A1E30 1 HEAT PUMP 25 TONS
 09A1E31 1 REPAIR HEAT PUMP
 09A1E32 1 PREVENTIVE MAINTENANCE
 09A1E33 1 REPLACE HEAT PUMP
 09A2000 FIXTURES, H & C
 09A3000 DISTRIBUTION SYSTEMS, H & C
 09B0000 VENTILATION SYSTEMS
 09B1000 EQUIPMENT, VENTILATION SYS.
 09B2000 FIXTURES, VENTILATION SYS.
 09B3000 DISTRIBUTION SYSTEMS, VENT. SYS.
 09C0000 EXHAUST SYSTEMS
 09C1000 EQUIPMENT, EXHAUST SYS.
 09C1100 1 EXHAUST FAN
 09C1110 1 EXHAUST FAN 200 CFM
 09C1111 1 REPAIR FAN
 09C1112 1 PREVENTIVE MAINTENANCE
 09C1113 1 REPLACE UNIT
 09C1120 1 EXHAUST FAN 1000 CFM
 09C1121 1 REPAIR FAN
 09C1122 1 PREVENTIVE MAINTENANCE
 09C1123 1 REPLACE ROOF MOUNTED EXHAUST F
 09C1130 1 EXHAUST FAN 10000 CFM
 09C1131 1 REPAIR EXHAUST FAN 10000 CFM
 09C1132 1 PREVENTIVE MAINT. EXHAUST FAN
 09C1133 1 REPLACE EXHAUST FAN 10000 CFM
 09C1140 1 EXHAUST FAN 25000 CFM
 09C1141 1 REPAIR EXHAUST FAN 25000 CFM
 09C1142 1 PREVENTIVE MAINT. EXHAUST FAN
 09C1143 1 REPLACE EXHAUST FAN 25000 CFM
 09C1150 1 EXHAUST FAN 50000 CFM
 09C1151 1 REPAIR EXHAUST FAN 50000 CFM
 09C1152 1 PREVENTIVE MAINT. EXHAUST FAN
 09C1153 1 REPLACE EXHAUST FAN 50000 CFM
 09C2000 FIXTURES, EXHAUST SYS.
 09C3000 DISTRIBUTION SYSTEMS, EXHAUST SYS.
 09D0000 SPECIAL SYSTEMS
 09D1000 CLEAN ROOMS
 09D2000 RF SHIELDING
 09D3000 PAINT SPRAY BOOTHS
 09D4000 SPECIAL AIR FILTRATION
 09D5000 HUMIDITY CONTROL SYSTEMS
 09D5100 1 ROOM HUMIDIFIER, FLOOR TYPE
 09D5101 1 REPAIR HUMIDIFIER

Cases No : Unit of Measure : Description

09D5102 1 PREVENTATIVE MAINTENANCE CLEANING
 09D5103 1 REPLACE REPLACE HUMIDIFIER
 09D6000 OTHER
 09E0000 CONTROLS AND INSTRUMENTATION
 09E1000 DEVICES
 09E1100 1 THERMOSTATS/PNEUMATICS
 09E1110 1 THERMOSTATS/PNEUMATICS
 09E1111 1 PREVENTIVE MAINTENANCE
 09E1112 1 REPLACE PNEUMATIC THERMOSTAT
 09E2000 TRANSMISSION MEDIA
 09F0000 TESTING, BALANCE, ETC.
 09F1000 TEST AND BALANCE
 09F2000 IDENTIFICATION SYSTEMS
 09F3000 O & M DATA
 1100000 INTERIOR ELECTRICAL
 1110000 SERVICE & DISTRIBUTION
 1112000 OVERHEAD SERVICE FEEDER
 1112001 4 REPAIR CABLE SPLICE.
 1112002 4 CABLE INSPECTION
 1112003 4 REPLACE SERVICE CABLE
 1113000 MAIN PROTECTION EQUIPMENT
 1113100 5 SWITCHGEAR, MAIN FRAME, 1200 A.
 1113101 5 REPAIR SWITCHGEAR
 1113102 5 PREVENTIVE MAINTENANCE AND INSPECTION.
 1113103 5 REPLACE SWITCHGEAR.
 1113200 1 FUSE
 1113201 1 REPLACE FUSE
 1114000 PRIMARY TRANSFORMER
 1114100 1 TRANSFORMER, LIQUID FILLED ABOVE 600 V
 1114101 1 REPAIR TRANSFORMER.
 1114102 1 PREVENTIVE MAINTENANCE AND INSPECTION.
 1114103 1 REPLACE TRANSFORMER.
 1114200 1 TRANSFORMER, DRY, ABOVE 15,000 V
 1114201 1 REPAIR TRANSFORMER.
 1114202 1 PREVENTIVE MAINTENANCE AND INSPECTION.
 1114203 1 REPLACE TRANSFORMER.
 1115000 POWER PROTECTION EQUIPMENT
 1115100 5 SWITCHGEAR, INDOOR
 1115101 5 REPAIR SWITCHGEAR.
 1115102 5 PREVENTIVE MAINTENANCE AND INSPECTION
 1115103 5 REPLACE SWITCHGEAR.
 1115200 5 SWITCHGEAR, INDOOR ABOVE 600 V
 1115201 5 MAINTENANCE AND REPAIR
 1115202 5 PREVENTIVE MAINTENANCE AND INSPECTION
 1115203 5 REPLACE SWITCHGEAR
 1116000 SECONDARY TRANSFORMER
 1116100 1 TRANSFORMER, LIQUID FILLED BELOW 600 V
 1116101 1 MAINTENANCE AND REPAIR
 1116102 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1116103 1 REPLACE TRANSFORMER
 1116200 1 TRANSFORMER, DRY BELOW 15,000 V
 1116201 1 MAINTENANCE AND REPAIR

Cases No : Unit of Measure : Description

1116202 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1116203 1 REPLACE TRANSFORMER
 1117000 LIGHTNING PROTECTION
 1117100 5 SWITCHGEAR, INDOOR, BELOW 600 V
 1117101 5 MAINTENANCE AND REPAIR
 1117102 5 PREVENTIVE MAINTENANCE AND INSPECTION
 1117103 5 REPLACE SWITCHGEAR.
 1117200 5 SWITCHGEAR, INDOOR ABOVE 600 V
 1117201 5 MAINTENANCE AND REPAIR
 1117202 5 PREVENTIVE MAINTENANCE AND INSPECTION
 1117203 5 REPLACE SWITCHGEAR
 1118000 POWER & LIGHTING DISTRIBUTION
 1118100 4 CABLE, THERMOPLASTIC, 601-15,000 V
 1118101 4 REPLACE CABLE
 1118200 4 CABLE, THERMOSETTING, 601-15,000 V
 1118201 4 REPLACE CABLE
 1118300 4 CABLE, LEAD COVERED, 601-15,000 V
 1118301 4 REPLACE CABLE
 1118400 4 CABLE, FLEXIBLE METALIC < 600 VOLT
 1118401 4 REPLACE CABLE
 1118500 4 BRANCH WIRING, 0-600 V
 1118501 4 REPLACE BRANCH WIRING
 1118600 4 BRANCH WIRING, OVER 600 V
 1118601 4 REPLACE BRANCH WIRING.
 1118700 3 BUSS DUCT
 1118701 3 MAINTENANCE AND REPAIR
 1118702 3 PREVENTIVE MAINTENANCE AND INSPECTION.
 1118703 3 REPLACE BUSS DUCT
 1118800 4 CONDUIT EMT
 1118801 4 REPLACE EMT CONDUIT
 1119000 SPECIAL EQUIPMENT
 1119100 1 METER, DARSONVAL GALVANOMETER
 1119101 1 MAINTENANCE AND REPAIR
 1119102 1 REPLACE METER
 1119300 1 INVERTER
 1119301 1 MAINTENANCE AND REPAIR.
 1119302 1 PREVENTIVE MAINTENANCE AND INSPECTION.
 1119303 1 REPLACE INVERTER.
 1119400 1 RECTIFIER, UNDER 600 V
 1119401 1 MAINTENANCE AND REPAIR.
 1119402 1 PREVENTIVE MAINTENANCE AND INSPECTION.
 1119403 1 REPLACE RECTIFIER.
 1120000 POWER SYSTEM
 1122000 SAFETY SWITCHES & BREAKERS
 1122100 1 SAFETY SWITCH, ENCLOSED
 1122101 1 MAINTENANCE AND REPAIR
 1122102 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1122103 1 REPLACE SAFETY SWITCH
 1122300 1 CIRCUIT BREAKERS
 1122310 1 CIRCUIT BREAKER, MC, 0-599 V
 1122311 1 MAINTENANCE AND REPAIR
 1122312 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1122313 1 REPLACE BREAKER
 1122320 1 CIRCUIT BREAKER, MC, 600 V AND OVER
 1122321 1 REPAIR FAILED BREAKER
 1122322 1 PREVENTIVE MAINTENANCE AND INSPECTION

Cases No : Unit of Measure : Description

1122323 1 REPLACE CIRCUIT BREAKER
 1122330 1 CIRCUIT BREAKER, FIXED, 0-599 V
 1122331 1 MAINTENANCE AND REPAIR
 1122332 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1122333 1 REPLACE CIRCUIT BREAKER
 1122340 1 CIRCUIT BREAKER, FIXED, 600V AND OVER
 1122341 1 REPAIR FAILED BREAKER
 1122342 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1122343 1 REPLACE CIRCUIT BREAKER
 1123000 MOTOR STARTER
 1123600 1 MOTOR STARTER, 0-600 V
 1123601 1 MAINTENANCE AND REPAIR
 1123602 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1123603 1 REPLACE STARTER
 1123700 1 MOTOR STARTER, 601-15,000 V
 1123701 1 MAINTENANCE AND REPAIR
 1123702 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1123703 1 REPLACE STARTER
 1124000 CONTACTORS AND RELAYS
 1124001 1 MAINTENANCE AND REPAIR
 1124002 1 PREVENTIVE MAINTENANCE
 1124003 1 REPLACE CONTACTOR/RELAY
 1127000 RECEPTACLES & PLUGS
 1127100 1 WIRING DEVICE, SWITCH
 1127101 1 MAINTENANCE AND REPAIR
 1127102 1 REPLACE SWITCH
 1127200 1 RECEPTACLE AND PLUG
 1127201 1 MAINTENANCE AND REPAIR
 1127202 1 REPLACE RECEPTACLE/PLUG
 1127300 1 SWITCH, PULL CORD
 1127301 1 MAINTENANCE AND REPAIR-SWITCH
 1127302 1 REPLACE SWITCH, PULL CORD
 1130000 LIGHTING SYSTEM
 1131000 LIGHTING FIXTURES
 1131100 1 INCANDESCENT LIGHTING FIXTURE
 1131101 1 MAINTENANCE AND REPAIR
 1131102 1 REPLACE LAMPS
 1131103 1 REPLACE LIGHTING FIXTURE
 1131200 1 QUARTZ LIGHTING FIXTURE
 1131201 1 MAINTENANCE AND REPAIR
 1131202 1 REPLACE LAMP
 1131203 1 REPLACE FIXTURE
 1131300 1 FLUORESCENT LIGHTING FIXTURE
 1131301 1 MAINTENANCE AND REPAIR
 1131302 1 REPLACE LAMPS (2)
 1131303 1 REPLACE FIXTURE
 1131400 1 HID
 1131410 1 HID, MERCURY VAPOR FIXTURE, 250-W
 1131411 1 MAINTENANCE AND REPAIR
 1131412 1 REPLACE LAMP
 1131413 1 REPLACE FIXTURE
 1131420 1 HID, METAL HALID FIXTURE, 250-W
 1131421 1 MAINTENANCE AND REPAIR
 1131422 1 REPLACE LAMP
 1131423 1 REPLACE FIXTURE
 1131500 1 EMERGENCY LIGHTING FIXTURE

Cases No : Unit of Measure : Description

1131501 1 MAINTENANCE AND REPAIR
 1131502 1 REPLACE LAMP
 1131503 1 REPLACE FIXTURE
 1131600 1 SODIUM FIXTURE
 1131610 1 H.P. 250 WATT
 1131611 1 MAINTENANCE AND REPAIR
 1131612 1 REPLACE LAMP
 1131613 1 REPLACE FIXTURE
 1131620 1 L.P. 200 WATT
 1131621 1 MAINTENANCE AND REPAIR
 1131622 1 REPLACE LAMP
 1131623 1 REPLACE FIXTURE
 1140000 GROUNDING SYSTEM
 1141000 ELECTRICAL SERVICE GROUND
 1141001 4 MAINTENANCE AND REPAIR
 1141002 4 REPLACE ELECTRICAL SERVICE GROUND
 1142000 BUILDING STRUCTURE GROUND
 1142001 4 MAINTENANCE AND REPAIR
 1142002 4 REPLACE BUILDING SERVICE GROUND
 1143000 LIGHTNING PROTECTION
 1143001 4 MAINTENANCE AND REPAIR
 1143002 4 REPLACE LIGHTNING PROTECTION
 1144000 COMPUTER SYSTEM GROUND
 1144001 4 MAINTENANCE AND REPAIR
 1144002 4 REPLACE COMPUTER GROUND SYSTEM
 1145000 SPECIAL GROUND SYSTEM
 1145001 4 MAINTENANCE AND REPAIR
 1145002 4 REPLACE SPECIAL GROUND SYSTEM
 1200000 SPECIAL INTERIOR ELECTRICAL SYSTEM
 1210000 SOUND SYSTEM
 1211000 TELEPHONE SYSTEM
 1211100 1 4-PIN RECEPTACLE
 1211101 1 M/R REPAIR 4-PIN RECEPTACLE
 1211102 1 REPAIR REPLACE 4-PIN RECEPTACLE
 1211200 4 TELEPHONE CABLE
 1211201 4 M/R REPAIR CABLE .22 AWG, 4 PAIR
 1211202 4 REPLACE REPLACE TELEPHONE CABLE .22AWG,
 1220000 INTERCOMMUNICATION SYSTEM
 1212001 1 MAINTENANCE AND REPAIR
 1213000 PUBLIC ADDRESS SYSTEM
 1213001 1 MAINTENANCE AND REPAIR
 1214000 RADIO COMMUNICATION SYSTEM
 1214001 1 MAINTENANCE AND REPAIR
 1220000 ALARM SYSTEM
 1221000 FIRE ALARM SYSTEM
 1221100 1 MANUAL PULL STATION
 1221101 1 M/R CHECK AND REPAIR MANUAL PULL STATION
 1221102 1 REPLACE REPLACE MANUAL PULL STATION
 1221200 1 SMOKE DETECTOR
 1221201 1 M/R REPAIR SMOKE DETECTOR
 1221202 1 REPLACE REPLACE SMOKE DETECTOR
 1221300 1 FIRE ALARM BELL

Cases No : Unit of Measure : Description

1221301 1 REPLACE REPLACE 6 IN. FIRE ALARM BELL
 1221400 1 ANNUNCIATION PANEL
 1221401 1 M/R MINOR REPAIRS TO ANNUNCIATION PANEL
 1221402 1 PM PREVENTIVE MAINTENANCE AND INSPECTION
 1221403 1 REPLACE REPLACE ANNUNCIATION PANEL
 1222000 INTRUDER DETECTION SYSTEM
 1222001 1 MAINTENANCE AND REPAIR
 1223000 EQUIPMENT ALARM SYSTEM
 1223001 1 MAINTENANCE AND REPAIR
 1230000 TELEVISION SYSTEM
 1232000 CLOSED CIRCUIT TV SYSTEM
 1232001 1 MAINTENANCE AND REPAIR
 1240000 CONTROL SYSTEM
 1241000 ENERGY MANAGEMENT SYSTEM
 1241001 1 MAINTENANCE AND REPAIR
 1242000 RADIO CONTROL SYSTEM
 1242001 1 MAINTENANCE AND REPAIR
 1250000 HOSPITAL SYSTEM
 1251000 NURSE CALL
 1251001 1 MAINTENANCE AND REPAIR
 1252000 DOCTOR PAGING
 1252001 1 MAINTENANCE AND REPAIR
 1253000 DOCTOR REGISTER
 1253001 1 MAINTENANCE AND REPAIR
 1254000 GROUND DETECTION
 1254001 1 MAINTENANCE AND REPAIR
 1255000 MARCOTICS ALARM
 1255001 1 MAINTENANCE AND REPAIR
 1256000 OXYGEN ALARM
 1256001 1 MAINTENANCE AND REPAIR
 1260000 CLOCK & PROGRAM SYSTEM
 1261000 CLOCK AND PROGRAM SYSTEM
 1261001 1 MAINTENANCE AND REPAIR
 1270000 ELECTRIC HEATING SYSTEM
 1271000 BASEBOARD HEATERS
 1271001 1 MAINTENANCE AND REPAIR
 1271002 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1271003 1 REPLACE BASEBOARD HEATER
 1272000 WALL & CEILING HEATERS
 1272100 1 WALL MOUNTED & RECESSED WITH FAN
 1272101 1 MAINTENANCE AND REPAIR
 1272102 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1272103 1 REPLACE HEATER
 1272200 1 RADIANT SUSPENDED, COMMERCIAL
 1272201 1 MAINTENANCE AND REPAIR
 1272202 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1272203 1 REPLACE HEATER
 1272300 1 INFRARED SUSPENDED, COMMERCIAL
 1272301 1 MAINTENANCE AND REPAIR
 1272302 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1272303 1 REPLACE IR HEATER
 1273000 INDUSTRIAL HEATERS

Cases No : Unit of Measure : Description

1273100 1 STANDARD SUSPENDED HEATER
 1273101 1 MAINTENANCE AND REPAIR
 1273102 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1273103 1 REPLACE HEATER
 1273200 1 EXPLOSION PROOF INDUSTRIAL
 1273201 1 MAINTENANCE AND REPAIR
 1273202 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1273203 1 REPLACE HEATER
 1274000 DUCT HEATERS
 1274001 1 MAINTENANCE AND REPAIR
 1274002 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1274003 1 REPLACE DUCT HEATER
 1280000 POWER GENERATING SYSTEM
 1281000 ENGINE GENERATOR SETS
 1281100 1 GENERATOR, GASOLINE POWERED
 1281102 1 PREVENTIVE MAINTENANCE
 1281103 1 REPLACE GENERATOR COMPONENT
 1281200 1 GENERATOR, DIESEL
 1281202 1 PREVENTIVE MAINTENANCE
 1281203 1 REPLACE DIESEL GENERATOR COMPONENT
 1281300 1 GENERATOR, VAPOR GAS POWERED
 1281302 1 PREVENTIVE MAINTENANCE
 1281303 1 REPLACE GENERATOR COMPONENT
 1281400 1 TURBINES
 1281410 1 GENERATOR, STEAM TURBINE
 1281412 1 PREVENTIVE MAINTENANCE
 1281413 1 REPLACE GENERATOR COMPONENT
 1281420 1 GENERATOR, GAS TURBINE
 1281422 1 PREVENTIVE MAINTENANCE
 1281423 1 REPLACE GENERATOR COMPONENT
 1281500 1 TRANSFER SWITCH
 1281501 1 MAINTENANCE AND REPAIR
 1281502 1 PREVENTIVE MAINTENANCE
 1281503 1 REPLACE TRANSFER SWITCH
 1282000 UNINTERRUPTIBLE POWER SOURCE
 1282100 1 STATIC CHARGER, BATTERY
 1282101 1 MAINTENANCE AND REPAIR
 1282102 1 PREVENTIVE MAINTENANCE AND INSPECTION
 1282103 1 REPLACE CHARGER
 1282200 1 MOTOR GENERATOR, BATTERY
 1282201 1 MAINTENANCE AND REPAIR
 1282202 1 PREVENTIVE MAINTENANCE
 1282203 1 REPLACE MOTOR GENERATOR
 1283000 EMERGENCY BATTERY SYSTEM
 1283100 1 BATTERY, PRIMARY WET
 1283101 1 PREVENTIVE MAINTENANCE
 1283102 1 REPLACE BATTERY
 1283200 1 BATTERY, PRIMARY DRY
 1283201 1 PREVENTIVE MAINTENANCE
 1283202 1 REPLACE BATTERY
 1283300 1 BATTERY, SECONDARY WET
 1283400 1 BATTERY, SECONDARY DRY

APPENDIX E: FORMS FOR FACILITY MODELING

Collection of Building Component Data for MRPM Using Drawings and Physical Inspections

To model a building at the detailed level, you must list the quantities of components in the building and enter them into the MRPM. This is known as performing "quantity take-offs (QTOs)."

1. The first step is to place buildings into homogenous groups. That is, a facility group (FG) should contain only similar buildings--those that you believe can be represented by one typical building. For example, 20 family housing buildings all containing 24 dwelling units with about the same area (square feet), all built at the same time and all maintained similarly, would be one FG. Only one building would need to be modeled. That is, only one would need complete component QTOs performed. The others can be input into the MRPM by duplicating the one modeled in detail using MRPM's features. However, the data for every building must be "fine-tuned" by inputting the latest dates for major component replacements--roofs, heating systems, floors, exterior finishes, and windows.

2. Once the typical building has been selected, use existing drawings to obtain component material types and quantities. Then use physical inspections to verify this data and to obtain any data that cannot be obtained from the drawings.

3. The attached procedure and forms are suggested for use in recording data on the facility groups, the building QTOs, and time spent on the work. These are not mandatory and may be modified as needed for your convenience and efficiency at your installation. However, all of the information must be collected and recorded in some manner before inputting into the MRPM.

Installation Model Procedures

1. GENERAL FACILITY INFORMATION FORM - Complete this form for all facilities to be modeled and enter this information into MRPM.

2. MRPM-MODELED FACILITIES REPORT - Complete this form to indicate identical facilities that require only one building to be modeled.

Facility Inspection Procedure

1. Record starting time on the Time Sheet.

2. Obtain working drawings from the installation.

3. Review drawings to establish room numbering system. Set up a Rooms in Building Form.

4. Go to the facility to determine actual components and quantities. The facilities may have been changed and no drawings kept on the change. Record exterior components and interior components. Use the Inspection Checklist to coordinate work. Use Component Form One to record components in rooms. Use Component Form Two to record exterior, major HVAC, major electrical, major pipe runs, etc. Calculate the gross floor area and place on the Time Sheet.

5. Add component quantities in rooms to form totals for the building. Record stop time on Time Sheet and calculate total time.

6. Enter building totals into the MRPM system. Record start and stop times.

7. Make a copy of QTO Forms for the installation and USACERL.

8. Standard Doors - A standard door for counting doors to be entered into the MRPM system is a single door approximately 6 ft by 3 ft.

9. Standard Windows - A standard window for counting windows to be entered into the MRPM system is a window approximately 2 ft by 4 ft or 8 sq ft of surface area. Larger windows should be translated into the equivalent number of standard windows.

INSTALLATION:

DATE:

PAGE:

GENERAL FACILITY INFORMATION FORM

FACILITY ID (3)																			
FACILITY DESCRIPTION (4)																			
F&C CODE (5)																			
SUB INSTALLATION (1)																			
AREA (2)																			
NUMBER IN F/C (6)																			
TRAVEL ZONE (7)																			
SQUARE FEET (8)																			
CONSTRUCTION YEAR (9)																			
WORK METHOD INDEX (10)																			
SCM (11)																			
DIRECTORY (17)																			

Facility Inspection Procedure

1. Record starting time on the Time Sheet.
2. Obtain working drawings from the installation.
3. Review drawings to establish room numbering system. Set up a Rooms in Building Form.
4. Go to the facility to determine actual components and quantities. The facilities may have been changed and no drawings kept on the change. Record exterior components and interior components. Use the Inspection Checklist to coordinate work. Use Component Form One to record components in rooms. Use Component Form Two to record exterior, major HVAC, major electrical, major pipe runs, etc. Calculate the gross floor area and place on the Time Sheet.
5. Add component quantities in rooms to form totals for the building. Record stop time on Time Sheet and calculate total time.
6. Enter building totals into the MRPM system. Record start and stop times.
7. Make a copy of QTO Forms for the installation and USACERL.
8. Standard Doors - A standard door for counting doors to be entered into the MRPM system is a single door approximately 6 ft by 3 ft.
9. Standard Windows - A standard window for counting windows to be entered into the MRPM system is a window approximately 2 ft by 4 ft or 8 sq ft of surface area. Larger windows should be translated into the equivalent number of standard windows.

ROOMS IN BUILDING FORM

INSTALLATION

DATE: _____

BUILDING NUMBER: _____

[illegible]

INSPECTION CHECK LIST

INSTALLATION _____
DATE: _____

BUILDING NO.

[illegible]

COMPONENT FORM - ONE

INSTALLATION _____
DATE: _____

BUILDING NUMBER: _____
COMPONENT NUMBER: _____
COMPONENT DESCRIPTION: _____

[illegible]

COMPONENT FORM - TWO

INSTALLATION _____
DATE: _____

BUILDING NUMBER: _____

[illegible]

ABBREVIATIONS AND TERMS

AMS	Army Management System
AR	Army Regulation
ARM	Annual Recurring Maintenance
CACES	Computer-Aided Cost Estimating System; the system used by USACE to calculate all MCA costs to perform new construction.
DA	Department of the Army
DEH	Directorate of Engineering and Housing
DOD	Department of Defense
EH	Equipment hours
EPS	Engineered Performance Standards
HQDA	Headquarters, Department of the Army
HQ-IFS	Headquarters, Integrated Facility System
HVAC	Heating, ventilation, and air-conditioning
LH	Labor hours
MACOM	Major Command
MC	Material cost
MRPM	Maintenance Resource Prediction Model.
MRT	Major replacement task
PC	Personal computer
SCM	Special condition multiplier
SEQ	Sequence monitor

Average task frequency The normal period of time between one performance of a task and the next performance of the same task.

Component	The smallest part of a facility that is considered important in determining the maintenance resources required to maintain the facility.
Facility group	A collection of identical facilities constructed from the same plans and maintained as a unit (e.g., all roofs, furnaces, or bathrooms replaced at same time).
High task frequency	The shortest possible period of time between one performance of a task and the next performance of the same task.
Low task frequency	The longest possible period of time between one performance of a task and the next performance of the same task.
Maintenance	All work performed to keep an item (e.g., floor, facility, area, installation) in operating order.
Task frequency	The time in years between performance of the task (e.g., painting is performed once every 10 years).

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